SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1962

No. 438

UNITED STATES, APPELLANT,

vs.

THE SINGER MANUFACTURING COMPANY

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

Volume II

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* Several exhibits bear two different exhibit numbers. In every such instance the exhibit was originally an exhibit to the Agreed Statement of Facts and bore an exhibit number preceded by the letter S, such as S-1, S-2, S-3, et cetera. Notwithstanding the fact that they bore "S" exhibit numbers, at times some were introduced in evidence with plaintiff's exhibit number and in two instances with a defendant's exhibit number. "S" exhibits bearing a Government exhibit number have been designated by the Government by the latter number, with the "S" exhibit number in parentheses, for example, "Govt. 2 (S-1)".

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45—Transmittal letter from Patent Department, Singer Mfg. Co. to M. L. Waterman, dated January 14, 1959	5265	1433
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46—Letter from Leon Jolson, Necchi Sewing Machine Sales Corp. to Mr. Donald Kirchner, dated February 2, 1959	5269	1436
48—Letter to Mr. Leon Jolson, Necchi Sewing Machine Sales Corp. dated February 26, 1959	5271	1437
49—Letter from David S. Kane to Branville M. Brumbaugh, dated April 29, 1959	5272	1438
50—Letter from "Brummie" (B. M. Brumbaugh) to David S. Kane, dated April 30, 1959	5274	1440
51—Letter from Singer Mfg. Co., Director to United States Treasury Department, Bureau of Customs, dated May 13, 1959 (excerpts)	5276	1441
52—Letter from Granville M. Brumbaugh to Frank W. Schattschneider, dated May 18, 1959	5281	1442
53—Letter from Patent Department, Singer Mfg. Co. to Donald P. Kircher, President, dated October 14, 1959	5282	1443

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55—Letter from Patent Department, Singer Mfg. Co. to M. L. Waterman, Vice President, dated August 26, 1958	5286	1444
56—Letter from Patent Department, Singer Mfg. Co. to L. Adamson, Frankfurt, Germany, dated December 31, 1958	5288	1445
57—Letter from Fritz Gegauf, Sr. to M. L. Waterman, dated March 6, 1959	5289	1446
58—Letter from United States Patent Office Examiner to Michael S. Striker, re Serial No. 393,760	5290	1447
59—Letter from Michael S. Striker to Cicogna Franco & C, Italy, dated January 23, 1958 re Serial No. 393,760	5292	1449

DEFENDANT RESTS

Mr. Pettit: We rest, your Honor.

The Court: Defendant rests.

* * * * * * *

DODGE E. BARNUM, called as a witness by the Plaintiff in rebuttal, being first duly sworn, testified as follows:

Direct examination.

By Mr. Elkins:

Q. What is the address of your residence, Mr. Barnum?

A. 134 Shaker Boulevard, Cleveland, Ohio.

Q. Where are you employed, sir?

A. White Sewing Machine Corporation.

Q. And where is the White Sewing Machine Corporation [fol. 1971a] located?

A. Well, our particular Division headquarters are at 117-17 Berea Road—that is actually in Lakewood, Ohio.

[fol. 1972] Q. In what position do you serve White Sewing Machine, sir?

A. I am a vice president and generally identified as merchandising manager.

* * * * * * *

[fol. 1973] Q. Your company, White, formerly manufactured sewing machines, did it, sir?

A. Right.

Q. Until when?

A. We suspended in September 1957.

Q. What types of household sewing machines did White manufacture?

A. Just the straight stitch machine.

Q. Since White has stopped manufacturing, has it imported machines, sir?

A. Yes.

Q. What type of machines does it import?

A. Well, it is commonly described as straight stitch machine, the manually-controlled zigzag machine and the replaceable cam automatic machine.

Q. Replaceable cam type.

A. Zigzag, yes.

Q. What is the level of business of the customers of White?

A. With very very small exception they are retailers. [fol. 1974] Dealers we call them, direct dealers.

Q. In the performance of your duties do you personally contact these customers?

A. Regularly.

Q. What is that, please?

A. Regularly.

Q. For what purpose do you contact them, sir?

A. Well, primarily to sell, and in that responsibility it is a matter of assisting with promotions and helping ad planning, but essentially selling.

Q. Do any of your subordinates contact your customers?

A. Yes. We have about a dozen men in the field throughout the United States that are referred to as regional sales managers.

Q. And do these regional sales managers report to you on their customer contacts?

A. Yes.

Q. How frequently, sir?

A. Well, at least once a week. Sometimes, depending on the situation, more frequently.

Q. Mr. Barnum, does White sell a built-in cam machine?

A. No.

[fol. 1975] Q. What is the reaction of your customers to the fact that White does not sell a built-in cam machine?

A. Well——

Mr. Klots: I object to the question as not qualified to answer.

The Court: I think he is. I will take it at this point. You may cross-examine him later on as to his qualifications. You have an exception to my ruling.

You may answer.

Q. The question, sir, was, what is the reaction of your

customers to the fact that White does not sell a built-in cam machine or have one to sell?

Mr. Klots: I also object on the ground that I don't know what the word "reaction" means; to the form of the question.

The Court: Of course it is a little indefinite.

By the Court:

Q. Do you find amongst your customers a demand for any specific type machine? That would be the fairer way to put it, perhaps.

A. We do.

Q. What specific fields of demand have you found to be present amongst your customers with reference to household sewing machines?

[fol. 1976] A. Well, we are regularly criticized by large numbers of our dealers for not offering the so-called built-in cam automatic machine. They feel that this is referred to in their conversations as the top of the line, and they claim that there is a steady and constant demand for it on the part of their customers in turn, and they think we are negligent and don't have much respect for our ability, in view of the name and reputation we have enjoyed over the years for not being able to supply them with such a machine which they consider is the only thing we lack.

Q. We have in evidence here some reports of your company.

The Court: May we have the reports.

Mr. Klots: The annual report for 1957.

The Court: I think there were one or two of them, as I recall.

Q. Is this a report of your company for the year 1957, Defendant's Exhibit 170?

A. 1957 is the cover of it.

Q. Is the interior?

A. Yes.

Q. Are the statements in that report, of your own knowledge, true, particularly the statements as to your discontinu-

[fol. 1977] ance of manufacturing machines in the United States?

A. Yes, to the best of my knowledge.

Q. Was there a constant falling-off of the White sales in the past ten years?

A. Yes.

Q. Did that constant falling-off take place prior to the introduction of the built-in multiple-cam machine-carried sewing machines?

A. Well, that falling-off was naturally affected by the imports generally.

Q. I did not ask you that question.

A. I didn't understand it then, Judge.

Q. I said, did your sales fall off for a period prior to the introduction into the market of machine-carried multiple-cam sewing machines?

A. Yes.

Q. All right. You import all your machines now?

A. That's right.

Q. And they are manufactured abroad for you and brought in under the White label or name?

A. That's right.

Q. And where is your present source of supply?

A. You mean in Japan?

[fol. 1978] Q. I don't know where it is.

A. Yes, Japan exclusively now, right now, yes.

Q. And was there any other source of supply outside the United States prior to the time when it became exclusively Japanese?

A. Yes.

Mr. Elkins: I beg your pardon. I did not hear that.

The Court: Was there any other source of supply prior to the time that it became entirely Japanese? And the witness said yes.

Q. What was the other source of supply?

A. Germany.

Q. Where did you have your machines made there, in what company?

A. Gritzner-Kayser.

Q. Do they make a machine-carried multi-cam machine?

Mr. Elkins: If your Honor please, I wanted to go on with the direct examination——

The Court: I am going to permit you to do that. I simply want to follow along this thought while it is in my mind.

Mr. Elkins: All right.

A. I presume they do, your Honor. They were making [fol. 1979] one.

Q. Did you ever import any machine-carried multi-cam machines made by Gritzner-Kayser to meet the demand of your customers?

A. No.

The Court: I see. All right, you may continue.

By Mr. Elkins:

Q. Has the fact that you do not have a built-in cam machine cost you any business, sir?

A. Well, we naturally think it does, obviously, because many of these dealers tell us that they are forced to have one and feel that they have given us sufficient time to produce it, so they do buy competitive lines to fill in what they call a complete line, and in that process there are certain suppliers that they buy from who also offer parts of the complete line, at least that we sell, which they feel they should buy.

We have had all sorts of reports that in order to insure their supply, for one, they feel they had better buy others, or whether it is just a cooperative expression on their part, but we feel that certain machines we might be selling are affected by the absence of this other one.

Mr. Klots: I move to strike out the answer as purely [fols. 1980-1981] speculative, if your Honor please.

The Court: We will let it stand. You may cross-examine as to it. The motion is denied.

By Mr. Elkins:

Q. Do you find, sir, that some of your customers have in stock a built-in cam machine?

A. Yes.

Q. And that, of course, is not a machine sold to them by White.

A. Correct.

Q. Do they have in stock other types of sewing machines

made by the same manufacturer of the built-in cam machine that they do have in stock?

A. In some instances.

Q. You spoke of the retailers referring to a complete line, sir. Can you tell us what your retailers consider to be a complete line of household sewing machines?

A. Well, they consider a complete line to be—they are quite satisfied with our line as being practically complete, with the absence of one machine or one model which is the built-in cam automatic.

* * * * * * * *

[fols. 1982-1985] Q. Does the White straight stitch machine take an attachment for a zigzag, sir?

A. Yes, it does.

* * * * * * * *

[fol. 1986] Afternoon Session 3 P.M.

Dodge E. Barnum resumed.

Mr. Elkins: I have a few more questions before cross starts, your Honor.

The Court: All right.

Direct examination continued.

By Mr. Elkins:

Q. Mr. Barnum, White sells a manually operated zigzag machine, does it?

A. Yes.

Q. And are you acquainted with that machine? Are you acquainted with it?

A. Oh, yes.

Q. Have you demonstrated it?

A. Yes, I have demonstrated it.

Q. And in demonstrating it, why, you have used it to make the zigzag stitches?

A. Yes.

Q. How does that compare, sir, with a machine that automatically produces the stitch through the operation of cams?

Mr. Pettit: Your Honor, I object to that question unless he explains in what manner he is talking about—in what respect, weight, height, color, operation?

[fol. 1987] Q. I am referring to the facility of the operation, having in mind the ease with which the stitch can be made and also the time required to make the stitch.

A. You are speaking of so-called embroidery designs or decorative stitching?

Q. Yes.

A. Well, there is really no comparison. For me this is a very difficult operation and requires—to be good at it requires considerable practice and skill and sense of timing.

Q. And you are speaking of the zigzag machine that produces the ornamental stitch by manual operation?

A. Right.

Mr. Elkins: That is all, sir.

Cross-examination.

By Mr. Pettit:

Q. Mr. Barnum, have you ever sought—and by you I mean White—ever sought to buy any built-in multi-cam machine?

A. Yes, we have.

Q. From Vigorelli of Italy?

A. I don't believe so—at least to my knowledge, I don't recall that name.

Q. Have you ever sought to buy any from Bernina—[fol. 1988] Gegauf, known as Bernina, in Switzerland?

A. I don't believe so; not to my recollection.

Q. Have you ever sought to buy any from Messerschmitt in Germany?

A. I think not.

Q. Borletti in Italy?

A. We have looked at Borletti and considered it.

Q. But you have not talked with them?

A. No.

Q. Have you ever sought to buy from Koyo Seiki Japan? I am just asking you if you sought to buy it?

A. Well, we have consulted——

Q. Just answer my question. Have you consulted with them in order to buy it? Did you ask them to sell the machine to you?

A. No, we didn't ask them to sell us a machine.

Q. Have you ever asked the Feather Company of Japan to either manufacture for you or to sell to you multi-cam machines?

A. I don't know.

[fol. 1989] Q. You go to Japan quite regularly, do you not?

A. I have made three trips.

Q. You deal there with Japanese manufacturers?

A. Not deal with them.

Q. Talk to them?

A. Talk with them. In the sense of buying, though, we only buy from trading concerns.

Q. You buy from trading concerns. But you have complete charge of dealing with and arranging for the type of machine you want, the specifications of it, the features that the machine has?

A. Correct.

Q. In connection with that, you talk with your suppliers, the manufacturers of these machines.

A. Correct.

Q. You tell them the features you want; you bargain with them as to the price that is involved with respect to each of the particular features?

A. With the trading firms.

Q. With the what?

A. With the trading firms. We don't discuss any prices with factories because we don't buy directly from them.

Q. Then you do your talking with the trading firms?

[fol. 1990] A. Yes, sir.

Q. And you eliminate a feature if it seems too expensive for what it offers, from time to time, do you not?

A. Well, I don't—not as a feature. If it is a feature that is fundamental to our search. I don't know of any instance we have eliminated one.

Q. You have never said that you wouldn't take a feature in a sewing machine because the cost of that particular feature was too much?

A. As a feature, not to my knowledge.

Q. What do you mean "as a feature"?

A. Well, maybe I can best explain it this way. We have asked for a different type bobbin winder, for instance, than might be on this machine, or we have asked for a different type or position of the light that goes into the machine.

Q. If that cost is so much that you think it is out of proportion for what it has, you don't take it, do you?

A. Well——

Q. That is a rather simple question.

The Court: Don't argue with the witness, Mr. Pettit.

[fol. 1991] A. We wouldn't take it if we thought that this cost was out of line.

Q. Are you testifying that in your experience you have never found any single feature that you thought cost too much for what it added to the machine?

A. No. There has been an occasion when we did think so. A feature, however, that was offered us, not one that we sought.

By the Court:

Q. Does the White company seek to import or market a machine that reaches a definite purchase bracket group?

A. In some instances.

Q. Is that purchase bracket group that the White company tries to reach—does it concentrate its business activities on that one purchase bracket group, or do you try to have a range in price from a cheap machine to a very expensive machine?

A. That's our endeavor.

Q. And the cost to the retailer or consumer has never kept you from going into a particular machine?

A. I'd say that in a couple of instances cost has discouraged us from giving some serious consideration to some specific machine.

[fol. 1992] Q. What I have in mind is this. I hope you don't mind; I want to get this straightened out in my own mind.

Mr. Pettit: Very glad to have you do that.

Q. You people are essentially, in essence, distributors, are you not?

A. Correct.

Q. And you pay dollars upon delivery, don't you?

A. Correct.

Q. And you have a substantial amount invested in inventory which is not of your own manufacture?

A. That's correct.

Q. And unless that inventory is moved several times a year, you don't show a profit?

A. Right.

Q. Do you try, as a result of that, to concentrate upon a fast-moving bracket so that you won't have an expensive inventory laying around which is slow-moving?

A. Well, we try, but maybe I can explain it this way——

Q. You explain it any way you want to.

A. I think I can get this point clear.

Q. I want you to understand what I have in mind.

You are not a manufacturer today, and there is no way [fol. 1993] that you can, week-to-week, control your output or your purchases in proportion to your sales, is there?

A. Correct. That's right.

Q. You have to give your orders months in advance?

A. Right.

Q. For instance, how long does it take for you to get an order delivered after you place it?

A. Approximately six months.

Q. Six months. And during that six months there are potentials of market changes, of consumer demands?

A. That's right.

Q. Does that fact influence your company to the extent that it confines you to a certain bracket purchase group that you can rely upon with greater faith to be a constant buyer, to take up your inventory, rather than getting into the expensive machines which might have greater fluctuation in times of economic pressure? Does that influence your company in its buying and the type of machine it buys?

A. Well, within an area, your Honor, it does. As I was going to explain——

Q. You explain it now in your own way. You see what is bothering me? Let me be very frank with you because I want to be, and I want to get your reaction.

[fol. 1994] You had available to you zigzag machines from your former German supplier. You did not buy them.

A. That's right.

Q. You have available to you now certain zigzag multicam machines in your Japanese market.

A. Right.

Q. You have not bought them. You say that your customers have asked you about them. I am concerned with this; why haven't you bought them to meet this demand that you say exists? What is your reason for it?

A. Well, in order——

Q. That is what is bothering me.

A. In order of your questions, your Honor, the German machine, which was offered us, was not rejected strictly on the strength of the price of it, that we might have to pay, but it was in a lot of respects very similar to a machine we had imported from Germany for two or three years with which we had too much service trouble. It was too sensitive, it was too difficult for the average housewife to use successfully without constant help from the dealer, to which they objected because they don't like to keep making so many service calls or see the machine back so many times, and there were enough of the principles of that type machine with which we [fol. 1995] had two or three years experience involved in the further development of it with so-called built-in cams that that was just as much an influencing factor in that particular situation as the price was, although I do not deny that price was a consideration.

But in practically every model we offer our dealers—we have three: we have what is termed in our sales approach a promotional or a so-called price leader line of machines. One step above that we have what we call a de luxe line. Then a step above that we have a custom line. These are offered to cover the scope of operations of the various types of dealers we have, some who operate without the benefit of much newspaper or sales type advertising, others who rely upon that to attract traffic. So in practically every classification we have straight stitch, manually controlled zigzag or cam operated machines. We will usually have in our line three different models, ascending in price as we go up the scale.

By Mr. Pettit:

Q. You have three different models today, do you not, straight stitch, manually operated, and replaceable cam automatic?

A. That's correct. But, I mean, we have three models of [fol. 1995a] each of those machines, too, in most instances, in three different price categories.

[fol. 1996] Q. Among the various manufacturers who supplied you or manufactured machines that you sell, there are Aichi Kogyo; isn't that one of them?

A. Oh, Aichi Kogyo.

Q. Nishizawa?

A. Formerly.

Q. What did you say?

A. Formerly.

Q. Formerly.

A. Currently we are not getting any.

Q. But you did buy from them?

A. Yes.

Q. And Fuji?

A. Correct.

Q. And Janome?

A. Yes.

Q. And Hosei?

A. Yes.

Q. Janome is one of the biggest manufacturers in Japan?

A. Yes.

Q. You sell, as you said, a manually operated machine, and you represent that machine to be adequate for the purpose for which it is built and sold, do you not?

[fol. 1997] A. In that area, yes.

Q. Well, that area includes practically all forms of ornamental zigzag stitching. You just distinguish between the decorative and embroidery, but the normal zigzag stitch is performed perfectly, functionally by your manually controlled machine, is it not?

A. If it is controlled effectively.

Q. Well, controlled by the means that you put on it?

A. Well, a manual——

Q. No, I am not speaking of the manual operation. I am speaking of——

A. Then I understood you. I thought you were talking about——

Q. There is a functional zigzag stitch that operates automatically on your zigzag machine—you do not have to do anything; you just set it?

A. That is correct, as to width.

Q. And it performs all the functional stitches that could be seen on a zigzag machine—and by "functional" I am distinguishing between the decorative and the embroidery.

A. It is a basic zigzag stitch in various widths.

[fol. 1998] Q. You do not tell anybody that there is anything wrong with it or that it won't perform the basic zigzag stitch?

A. Oh, no.

Mr. Elkins: I object to what they don't tell their customers.

The Court: The objection is overruled.

Q. You also represent that machine by the use of manual levers can perform certain decorative and embroidery stitches?

A. Quite right.

Q. And the degree to which it can be used successfully or skillfully will depend, of course, upon the dexterity or skill of the person operating it?

A. Yes.

Q. You also sell a replaceable cam, as you call it—a replaceable cam automatic—that is the phrase you used for it?

A. Yes.

Q. That will perform once the cam is in it—that will perform the same stitch just as efficiently and just as well as that same cam in a multi-cam machine, will it?

A. Yes, I would think so.

[fol. 1999] Q. Now in 1957 you sold a multi-cam machine known as the White 666, did you not?

A. Yes.

Q. I think you furnished information to the government which shows that the company imported 1400 of those machines in the year 1957. You have discontinued the sale of that machine, is that correct?

A. Yes.

Q. Is that the machine that you were referring to when you were answering his Honor's question a moment ago?

A. On the subject of——

Q. Of its operation?

A. The one that I referred to as having difficulty?

Q. Where you had difficulty.

A. Yes.

Q. That is the one that you testified you were having some difficulty in repairing it?

A. Yes.

Q. Is that the only built-in multi-cam machine that you have dealt with or had experience with?

A. Yes.

Q. Well, some of your dealers do deal in multi-cam ma-
[fol. 2000] chines, you said, and buy them elsewhere?

A. Yes.

Q. Have you not heard that it is generally assumed, accepted and recognized that the service requirements of a built-in multi-cam machine are greater than the requirements of, for instance, a straight stitch sewing machine?

A. In general.

The Court: Did I understand your testimony before that the German-made machine requires more service than, for instance, the Japanese-made machine?

The Witness: In that particular experience, your Honor.

Mr. Pettit: I am sorry, your Honor, but I did not hear that.

The Court: I inquired as to the witness' testimony that the German-built machine requires more service than the Japanese machine to which they switched.

Mr. Pettit: I haven't understood that they switched to a multi-cam machine.

The Court: I said a Japanese-made machine.

Mr. Pettit: Oh!

The Court: We were talking about German manufactures.
[fol. 2001] The Witness: That is right.

The Court: I was always of the belief that a German-made machine was perfection in itself—in fact, that was a household statement.

Q. When you are comparing the services of the machine you now buy, you are comparing the service of a built-in cam machine with the service of a straight stitch or replaceable cam or manually operated machine?

A. That is right.

Q. Now you testified this morning in answer to the following question:

"Q. Did you ever import any machine-carried multi-cam machines made by Gritzner-Kayser to meet the demand of your customers?

"A. No."

That is correct, is it?

A. Well, we never regarded that as a multiple-cam machine.

Q. Were you answering that you hadn't imported it or were you telling counsel that it wasn't a multi-cam machine, built-in? He asked you——

The Court: I asked it.

A. Well, on the basis of multiple-cam, that is what I understood—that is the way I understood the question. We [fol. 2002] did not consider that a multiple-cam machine.

Q. How many cams did it have?

A. One, basic.

Q. How many others did it have that weren't basic?

A. Well, these were more or less endless. These were more or less inserted.

Q. Are you speaking of the Gritzner-Kayser?

A. Gritzner-Kayser—one cam in it could be adjusted to do a plain zigzag stitch or what we chose to call the serpentine. I don't know what the technical description of that stitch would be, but they were both, as we say, single line stitches, no embroidery effects.

Q. The same shaft that carry that cam carried additional cams?

A. On top, that is right.

Q. How many additional cams?

A. Just one at a time, which carried two more patterns.

Q. Now how did you answer my questions all the way through about multi-cam machines when you say you did not consider it a multi-cam machine?

A. Well, the fact that there was only one cam in it, and [fol. 2003] to get any embroidery effect or anything beyond the single line stitches we never regarded it as a multi-cam machine.

Q. Did you sell it as a multi-cam machine?

A. No, we had no description of that.

Q. Did you sell it as——

A. We sold it as an automatic because it was cam-operated.

Q. To you a cam-operated machine is automatic whether it has one cam or several cams?

A. That is the way we advertised them, yes.

Q. Now you have testified this morning that some of your customers buy multi-cam machines from other people and then will have in stock also machines made by the same manufacturer, is that correct?

A. That is correct.

Q. You do not have any exclusive contract, exclusive buying contract with these people, do you?

Mr. Elkins: I object. That is beside the question. The witness merely testified that he saw customers with the built-in cam of a competitor——

The Court: No, this is cross-examination. I am going to permit some latitude. This is cross-examination.

[fol. 2004] Q. Do you have an exclusive dealer contract with your customers?

A. Yes, we have some.

Q. Do you have some dealers that do not have?

A. Yes.

Q. And what proportion of the dealers are not under exclusive dealer contracts?

A. Oh, I would say possibly 20 or 25 per cent on that basis, and the majority otherwise.

Q. All the rest of them—75 per cent are restricted to buying White machines?

A. No, no, just the reverse.

Q. 75 per cent are unrestricted?

A. That is correct.

Q. But then all those 75 per cent, of course, are free to buy machines manufactured by anybody?

A. Well, the rest are, too.

Q. Are you a director of the company?

A. No, I am not.

Q. Have you been a director of the company?

A. Never.

Q. Do you know anything about their annual reports, quarterly reports to stockholders?

A. Well, I read them.

[fol. 2005] Q. You receive them?

A. I receive them.

Q. You are a stockholder?

A. That is right.

With the above in mind we are enclosing a draft of a proposed letter to Dr. Schwalb.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—

Draft of proposed letter.

CC: Mr. M. L. Waterman, New York, Mr. M. L. Waterman, Europe.

[fol. 3716] In United States District Court

Government's Exhibit 119

Proposed Letter

Dr. C. Schwalb,
Phoenix Nahmaschinen A.-G.,
Kleine Bahnhofstr. 3,
Bielefeld, West Germany.

Dear Dr. Schwalb:

This will acknowledge receipt of your letter of March 9 relative to the action we have taken with the Tariff Commission in Washington.

We are not informed as to any right you may have under our United States patent of Gegauf No. 2,832,302 which is now before the Tariff Commission. The application for this patent was acquired by Singer in good faith and before its acquisition an exhaustive examination was made which included records in the Patent Office in Washington and we found no licenses or assignments adversely affecting our title.

This week the Tariff Commission decided to institute a formal investigation and has set hearings for May 5, 1959. Under the circumstances I think it best for all concerned not to enter into a discussion of this matter until after final hearings by the Commission have been concluded.

Yours very truly, ——, ——.

[fol. 3717] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 120

Received Patent Department, April 6, 1959, Answered —.

April 3, 1959.

Dr. Carl Schwalb
Phoenix Nahmaschinen A.G.
Kleine Bahnhofstr. 3
Bielefeld, Western Germany

Dear Dr. Schwalb:

This will acknowledge receipt of your letter of March 9 relative to the action we have taken with the Tariff Commission in Washington.

We are not informed as to any right you may have under our United States patent of Gegauf No. 2,832,302 which is now before the Tariff Commission. The application for this patent was acquired by Singer in good faith and before its acquisition an exhaustive examination was made which included records in the Patent Office in Washington and we found no licenses or assignments adversely affecting our title.

As you no doubt have been advised, the Tariff Commission has decided to institute a formal investigation and has set hearings for May 5, 1959. Under the circumstances, while this matter is pending before the Commission, I think it best for all concerned not to enter into discussions of this matter until after final hearings by the Commission have been concluded.

Yours very truly, Donald P. Kircher, President.

Copy to Mr. M. L. Waterman, Mr. J. G. Stanford.

[fol. 3718] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 121

Received Patent Department, January 6, 1958, Answered—.

Dériaz, Kirker & Cie
Genève
Rue Du Mont-Blanc 14

Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Mr. J. G. Stanford,
The Singer Manufacturing Co.,
Patent Department,
Elizabethport F.,
New Jersey, U.S.A.

26th December, 1957.

Dear Mr. Stanford,

re: Gegauf's U.S.A. patent application Serial No. 700 079 of the 2nd December, 1957 (division)

We have just received the original and a copy of the assignment executed by Mr. Gegauf on the 23rd December, 1957, in Zurich, and concerning U.S. patent application Serial No. 700.079 of the 2nd December, 1957.

Mr. Gegauf would appreciate that, in view of the prosecution in certain European countries, the publication of the basic U.S. patent application Serial No. 358,377 be delayed as much as possible. Mr. Willi wrote to us that, as far as you have no contrary important reason, his client would like to ask you to pay the final fee at the end of the term, in order to delay publication of the patent.

Yours faithfully, Deriaz, Kirker & Cie, G. E. Kirker.

Enclosures (sep.)air mail and reg.

1 assignment with dupl.

[fols. 3719-3720] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 122

air mail

January 6, 1958.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's U.S.A. patent Application Serial No. 700,079 of December 2, 1957 (Division).

Thank you for your letter of December 26, 1957, K/JP, enclosing the original and copy of the assignment executed by Mr. Gegauf on De nber 23, 1957.

We do not know at this ime whether we can comply with Mr. Gegauf's request that the publication of United States Gegauf application Serial No. 358,377 be delayed as much as possible. In any event, we shall advise you in the near future as to the action we propose to take in this matter. In this connection we might mention that there is nothing disclosed in United States application Serial No. 358,377 that has not already been published in the Gegauf Italian patent No. 501,172 and in Gegauf Swiss. patent No. 318,123.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fol. 3721] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 124

Received Patent Department, January 20, 1958,
Answered January 21, 1958.

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

air mail

Mr. J. G. Stanford,
The Singer Manufacturing Co.,
Patent Department,
Elizabethport F.,
New Jersey, U.S.A.

17th January, 1958.

Dear Mr. Stanford,

Referring to your letter of the 6th inst., we would give you the following information we have obtained on the telephone, from Mr. Willi, of Blum & Co. attorneys of Gegauf.

The reason why they would like to postpone as much as possible the issuance of the U.S. patent deriving from Serial No. 358,377 is the following:

For the corresponding application in Germany, there are opposition proceedings in Germany. The discussion with the German Examiner is not yet completed and one of the prior art found in America has not been cited, either during the examination as to novelty or during the opposition proceedings in Germany. If the U.S. Patent issues shortly, it is to be feared that the German Examiner sees this patent and notices the list of prior art cited in America, and which will be indicated at the end of the U.S. patent. Then the German Examiner will be able to pick up certain U.S. patent which is particularly dangerous for Gegauf and, consequently, he might raise further difficulties and possibly refuse the patent. We do not know exactly which

is said U.S. patent, but Mr. Willy has given us the name on the telephone.

As the question of opposition in Germany will be settled probably within one or two months, and since the term for paying the final fee will not expire before May next, we hope you will be in a position to take Mr. Gegauf's request into account, in order that he gets in Germany the broadest possible claims. It seems that Singer has a certain interest in so doing, i.e. that Gegauf obtains broad claims in Germany for said case.

We are requesting Mr. Willi to let us know immediately as soon as the matter is settled in Germany.

Yours very truly, Deriaz, Kirker & Cie, G. E. Kirker.

[fol. 3722] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 125

January 21, 1958.

Mr. G. Kirker:
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's United States Patent Application Serial No. 700,079 of December 2, 1957 (Division).

We have received your letter of January 17, 1958 advising us why Mr. Willi of Blum & Co., attorneys for Gegauf, wishes us to postpone as long as possible the issuance of the United States patent deriving from United States Serial No. 358,377.

We do not expect to have the subject United States patent issued within the immediate future but circumstances may require us to have it issued before next May. In any event, if we do find it necessary to issue this patent before next May we shall advise you accordingly. At the same time we would be pleased if you would have Mr. Willi tell us as soon as the German matter is settled.

We would also like to know as soon as possible the

number of the United States patent, which Mr. Willi believes is dangerous with respect to the German Gegauf patent application.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fols. 3723-3724] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 126

air mail

January 30, 1958.

Mr. M. L. Waterman,
Singer Nahmaschine Co. A.-G.,
Badenerstrasse 41,
Zurich, Switzerland.

Dear Mr. Waterman:

I am sure that you will be pleased to know that the Patent Office has now finally agreed to the amendment of the Gegauf patent application. This puts us in a position to pay the final fee and have the patent issue to the Singer Company in about 6 weeks time. Yesterday I called Mr. Kircher and gave him this information and at the same time called attention to Mr. Gegauf's request that the final fee not be paid until a later date and recommended that, due to circumstances that exist at the present time, Mr. Gegauf's request be respected. Mr. Kircher readily agreed that the final fee should not be paid at this time.

. . . . . .

[fols. 3725-3728] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 127

February 18, 1958.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf United States Patent Application Serial No. 358,377 Filed May 29, 1953.

In order for us properly to exploit our United States patent rights it appears necessary for us to issue the above application as a patent as soon as possible. We are particularly desirous of asserting several of our United States patents against the importers into the United States of Japanese-made multi-cam ornamental stitch machines.

It is highly desirable that the Gegauf patent application be issued promptly and, therefore, we would like to pay the final fee on or before February 28, 1958 in which event a patent should issue on or about April 18, 1958. This is only two weeks before May 1, the date mentioned by Mr. Willi.

In the event that Mr. Willi should have a strong and valid objection with respect to our proposed action please cable us accordingly.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. D. P. Kircher, Mr. M. L. Waterman.

[fol. 3729] IN UNITED STATES DISTRICT COURT

GOVENRMENT'S EXHIBIT 130

Received Patent Department, May 28, 1959, Answered—.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

May 27, 1959.

In Replying Please Refer to MLW:V3

F. Gegauf, Esq.
Fritz Gegauf Aktiengesellschaft
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

As we previously advised you, we have instituted a proceeding before the United States Tariff Commission in an endeavor to prevent the importation into the United States of all non-licensed sewing machines which would infringe our Gegauf Patent No. 2,832,302. During a recent hearing before the Tariff Commission, Singer was asked by the Commissioners if Pfaff of Germany was licensed under Gegauf Patent No. 2,832,302 so that it could freely export infringing machines to the United States.

We advised the Commissioners that Pfaff had no such license, and it was not contemplated that such a license would be extended to Pfaff. However, in view of Paragraph (3) of the Singer-Gegauf agreement of December 5, 1957, our answer to the Commissioners was perhaps not too convincing.

We believe that the only way in which we can properly convince the Commissioners as to Pfaff's position in this matter is to revise Paragraph (3) of our agreement of December 5, 1957. Frankly, we think that such a revision of the agreement is quite necessary in order that we may have a better chance of prevailing before the Tariff Com-

mission. We hope that you will have no objection to deleting Pfaff's name from our agreement.

It is our suggestion that this matter could be most expeditiously handled by executing an agreement between Singer and yourself which would have the effect of deleting all mention of Pfaff. Such an agreement is enclosed in duplicate; and, if you believe that this new agreement is in proper order, we would be pleased if you would execute it in duplicate and return one of the copies to us so that we may convince the United States Tariff Commission as to Pfaff's position in the present matter.

[fols. 3730-3732] We would deeply appreciate any attention which you can give to this matter and, particularly, since time is a very important element.

Very truly yours, M. L. Waterman, Vice President.

Enclosure

cc: Mr. J. G. Stanford (not noted on original).

[fols. 3733-3735] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 132

Fritz Gegauf Limited
Steckborn (Switzerland)
Sewing Machine Manufacturers

Steckborn, June 10th, 1959.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y., U.S.A.

Dear Sirs:

We acknowledge receipt of your letter of May 27th, to which was given our best attention. As we are in no close connection whatsoever with Pfaff, we are in principal ready to conclude a new agreement with you in which all mention of Pfaff is deleted.

On this occasion we advise you that on April 5th, 1955, we have executed an agreement with Phoenix, photostatic

copy of which is enclosed. We did not mention this agreement in our negotiations with you time ago, because we were and still are of the opinion that the agreement with Phoenix refers exclusively to our German application G II 654 and thus is solely and exclusively valid for the West German territory only.

Since the agreement between Bernina and Phoenix dated April 5th, 1955, was not mentioned in our agreement with you of December 5th, 1957, because of the reasons outlined above, we suggest that, in order to avoid any claims for compensation of damages Phoenix might put against us, the mention of Pfaff is deleted in the new agreement, but substituted by the mention of Phoenix.

Should our agreement with Phoenix not be considered a sufficient reason for such a substitution by the Tariff Commission, or should yourself because of other reasons not be interested to introduce the mention of Phoenix in the agreement to be newly concluded between us, we then agree not to mention both Pfaff and Phoenix under the explicit condition that you assume to their full extent all consequences that might fall on us on account of our agreement with Phoenix from April 5th, 1955.

We look forward to your comment and remain with kind regards,

sincerely yours, Fritz Gegauf Limited, F. Gegauf.

enc.

[fol. 3736] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 133

Received Patent Department, June 22, 1959, Answered —.

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

Air Mail

Mr. J. G. Stanford,
Patent Department,
The Singer Manufacturing Company,
Elizabethport F., New Jersey

June 17, 1959.

Confidential.

Dear Mr. Stanford,

Re: Agreement with Bernina

Referring to Mr. Waterman's cable of the 9th instant and to your today's telephone call, please find below a résumé of the interview the writer had on the 15th instant in Zurich with Mr. Gegauf, his daughter, his son and Mr. Willy.

Bernina is willing to help you as much as possible in your fight in the U.S.A.

Bernina wrote you recently about a difficulty which arose with Phoenix. You have received a copy of their agreement with Phoenix. The writer has read the agreement and is of the opinion that it concerns Germany only and not to any foreign country. The argumenfs in favour of this opinion are as follows:

1) German patent applications only are mentioned in agreement;
2) At the time of signature of the agreement, patent applications were already filed in other countries for the Bernina invention referred to in the agreement;

3) It is a general rule that the abandonment of a right cannot be presumed but must be expressly stated. In the present case, giving to Phoenix the right to use the invention abroad would mean the abandonment of a part of the rights of Gegauf, and such abandonment should have been expressly men- [fol. 3737] tioned in the agreement, if such had been the intention of the parties. Assuming that such abandonment exists, as Phoenix do presently, is not in agreement with the fundamental rules.

Nevertheless Mr. Gegauf senior would not risk a litigation with Phoenix, even if there were 90 or 99% chances in his favour.

After we had this discussion, we reached the three following proposals:

1. The agreement between Bernina and Singer remains without any change and Mr. Gegauf prepares an Affidavit for the Tariff Commission in which he explains why he asked, at the time of signature of the agreement, that Pfaff be excluded from the agreement.

   Should this proposal enable you to remove the difficulties you have with the Tariff Commission, Mr. Gegauf would agree to prepare and give this Affidavit provided Singer agree to cover Bernina against the risk of possible legal action by Phoenix on the basis of the agreement of May 5, 1955. A letter from Singer to Bernina would be sufficient in this respect.
2. The agreement is replaced by the one recently proposed by Singer, which no longer mentions Pfaff. Mr. Gegauf can, in addition, supply you with an Affidavit as suggested in the preceding paragraph 1. As a counterpart Singer would have to cover Bernina against Phoenix, as indicated under 1. above.
3. The agreement is replaced by another one in which the name Phoenix is substituted for Pfaff. In this case Mr. Gegauf could prepare and send you an Affidavit explaining:

   (a) why he asked, at the time of signature of the agreement, that Pfaff be excluded from the agreement;

(b) why he now asks that Phoenix be introduced in lieu of Pfaff.

Remark. Since 1955 Phoenix has merged with Anker. In the case of the third proposal the present name of the company after merger would have to be given in the agreement.

[fols. 3738-3742] During the conversation we had today over the telephone, it was very difficult to hear you because your voice was periodically interrupted. We understand that you agree with proposal No. 2. and that Singer will be prepared to address to Bernina a letter stating that in case Phoenix did institute legal proceedings against Bernina, claiming the right to use the invention not only in Germany but also abroad and particularly in the United States, you would assume the financial risk which Bernina would run in the matter. In other words, Singer would give Bernina the assurance that, should the latter have costs or damages to pay to Phoenix on the basis of the agreement of May 5, 1955, Singer would meet the costs.

Mr. Gegauf explained to us that in spite of his sincere wish to help Singer, he is not in a position to take the risk of denying Phoenix the right they claim.

The matter being urgent, we suggest that Singer should write to Bernina, as soon as possible, the requested letter, if they agree. In the meantime Mr. Gegauf will sign the agreement and send it to you immediately upon receipt of the letter covering his company against Phoenix.

Yours very truly, Deriaz, Kirker & Cie,
E. E. Kirker.

[fol. 3743] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 136

July 14, 1959.

G. Kirker, Esq.,
Deriaz, Kirker & Cie.,
Rue du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Agreement with Bernina.

Thank you very much for your letter of June 17, 1959, K/los, advising us as to the results of the interview which you had on the 15th of June in Zurich with Mr. Gegauf, his daughter, and his son and Mr. Willi.

We were disturbed when we learned of the existence of agreement executed on May 5, 1955 between Gegauf and Phoenix. Mr. Gegauf never advised us of the existence of this agreement even though he was obligated to do so under the Singer-Gegauf agreement of April 14, 1956. Incidentally you may recall that it was Mr. Gegauf who inserted paragraph (6) in our April 14, 1956 agreement, which paragraph reads as follows:

> 6) All agreements already concluded by either party and concerning or having a connection with any of the above mentioned patents or patent applications must be communicated to the other party for approval before signature of the present agreement.

In a letter to us dated June 10, 1959, Mr. Gegauf in reference to the Gegauf-Phoenix agreement, stated that "we were and still are of the opinion that the agreement with Phoenix refers exclusively to our German application G.11,654 and thus is solely and exclusively valid for the West German territory only." We note from your letter to us of June 17, 1959 that you agree with Mr. Gegauf's interpretation of the Gegauf-Phoenix agreement.

Although we dislike Mr. Gegauf's attitude, particularly with respect to the Phoenix agreement, we presume that he is adamant about wishing Singer to assume any dam-

ages which may result if Phoenix should bring legal actions against Fritz Gegauf A.G. on the basis of the Gegauf-Phoenix agreement.

[fol. 3744] In view of this situation we are willing to settle this entire matter in accordance with paragraph (2) contained on page 2 of your above noted letter. In order to carry out our part of this we are enclosing an indemnification letter addressed to Mr. Gegauf and signed by our Vice-President and Director, Mr. Max L. Waterman. We trust that when you present this to Mr. Gegauf he will promptly execute the newly proposed Singer-Gegauf agreement as well as prepare the suggested affidavit. As mentioned in the enclosed letter, we would like to have the affidavit prepared in the English language and contain, inter alia, a definite statement that Fritz Gegauf has never extended to Phoenix any rights in and to the United States Gegauf patents Nos. 2,832,302 and 2,877,726.

We have sent Mr. Waterman's letter to you so that you may present it personally to Mr. Gegauf and thereby perhaps expedite this entire matter.

We thank you for any assistance which you can extend to us in connection with the above.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—

Letter

By Mr. Klots:

Q. Mrs. Hovsepian, I want to ask you this. Do you agree with this statement, if it should appear that Mr. Hugel testified——

A. Pardon?

Q. I am sorry. If it should appear that Mr. Hugel testified at the same Tariff Commission proceeding as follows, I want to ask you if you agree with this statement. He was asked by the Commissioner in charge:

> "Well, what this started out to be was—I was trying to find out whether one Japanese machine is competing with another Japanese machine."

Mr. Hugel, it appears, answered:

> "I think all machines compete with all machines."

[fol. 2049] Do you agree with that?

* * * * * * *

[fol. 2050] The Court: We are trying to find out what her idea of "compete" is, what her concept is. I think she has given a very good definition. She says articles compete when they "vie" for the market—is that right, in substance?

The Witness: That's right.

The Court: When they have the same common appeal to a buyer; is that right?

The Witness: Right.

Q. With that definition of "compete," do you agree with the statement that "All machines compete with all machines"?

A. Yes.

Q. Now you mentioned something about zigzag attachments to a straight stitch machine, that some women found it confusing.

[fol. 2051] Do you mean by that that it is necessary for the woman to guide the material more carefully than in a machine where the needle zigzags?

A. Correct, because the movement has the side-to-side movement and the back movement, and to guide it along the

line or wherever she wants to guide it—the two motions make it a little difficult to hold down.

Q. I see. In your line of machines that Brother International sells, you have a machine called the Flairmatic 190, do you not?

A. Correct.

Q. And you were with the company when that machine was first put on the market?

A. Yes.

Q. And that was in the last part of 1958, was it not?

A. Yes, 1958, 1959—yes, 1958-1959.

Q. Do you remember that when they first put that machine on the market they described it as "housewife engineered"? Do you remember that expression?

A. No, I do not.

Q. Well, I will show you this and perhaps this will refresh your recollection—I show you a page from the November 1958 issue of a magazine known as "Behind the Scenes." [fol. 2052] Do you know the magazine, "Behind the Scenes"?

A. Yes, I do.

Q. What is it?

A. A trade magazine.

Q. A trade magazine covering——

A. Sewing machines.

Q. —sewing machines?

A. Yes.

Q. I would like to show you this page and ask you if it refreshes your recollection——

Mr. Klots: First I will have it marked for identification.

Mr. Corcoran: May I have a copy of that?

(Document handed to Mr. Corcoran.)

(Marked Defendant's Exhibit 194 for identification.)

By Mr. Klots:

Q. Now if you will look at this article, Mrs. Hovsepian, and read the first paragraph or so (handing).

Does that refresh your recollection that this was described as "housewife engineered"?

Mr. Corcoran: Your Honor, may I ask a question here?

Have you ever seen this article——

[fol. 2053] The Court: No, not now, please. This is cross-examination, Mr. Corcoran.

A. Just the first paragraph?

Q. The second paragraph.

A. Yes.

Q. Do you remember that now?

A. Yes.

Q. You do remember it.

A. Yes, sir.

Q. Do you remember that the firm's decision to go into this type was the result of an extensive survey among housewives?

Mr. Corcoran: I object to that, your Honor. This witness has just seen this article.

Mr. Klots: Let her read it, let her take her time.

The Court: She is an intelligent lady.

A. Their promotional work is not part of my work, so we really don't know what survey they made.

Q. You don't know what survey they made?

A. No.

Q. I show you another one of these issues of "Behind the Scenes" for February-March 1959, and I show you an advertisement for a Brother machine which appears on page 7, [fol. 2054] and I ask you if that is an advertisement of the Flairmatic 190 that we have been talking about.

A. Yes.

Q. That is one. You recognize it?

A. Yes.

Mr. Klots: I offer it in evidence.

Mr. Corcoran: No objection.

(Received in evidence as Defendant's Exhibit 195.)

Q. I show you this, which is now Defendant's Exhibit 195, Mrs. Hovsepian, and if you will look down to the lefthand side, about the middle of the page, you will see in big letters, "The Most Want Selling Features!" Do you see that?

A. Yes.

Q. And at the bottom under that it says:

"Ultra-Simplified . . . Beautifully Designed . . . Sensationally Priced! It's All Machines in One! Instant . Straight Stitching! . Fancy Stitching! Automatic Designs! It's as simple as a straight stitcher . . . yet as versatile as the most advanced automatic!"

Do you see that?

A. Yes, sir.

[fol. 2055] Q. That was true, wasn't it? Everything said in there was true?

A. Well, I won't commit myself. What they say in advertising is not always so.

Q. What do you think it was? Is it so?

Mr. Corcoran: Your Honor, I object. She has already expressed her opinion. She has answered the question.

The Court. No. Overruled.

Do you accept that statement as being an accurate description of that machine? If not, point out what part you think is inaccurate.

The Witness: Where it says "automatic designs." It is not as automatic as that.

The Court: It is not as automatic as what?

The Witness: As—well, it is not complete——

The Court: Not as automatic as automatic?

The Witness: It is not completely automatic. Well, in the sense that we visualize automatic. It has to—automatic means to do by itself.

The Court: That's right. It goes by itself. There is no sewing machine at all that goes by itself, is there?

The Witness: That is, it forms a pattern, a design by [fol. 2056] itself.

The Court: With a minimum of human effort——

The Witness: Yes.

The Court: —does it do what it says it does?

By Mr. Klots:

Q. Do you think your company put out advertising that wasn't so?

A. Pardon?

Mr. Corcoran: I object, your Honor.

The Court: Wait. She hasn't answered the question. Therefore I will sustain an objection.

A. Well, I don't want to commit myself on that.

The Court: Well, now, wait a minute. You have already committed yourself as an expert.

The Witness: Yes.

The Court: You are called here——

The Witness: Well——

The Court: Wait a minute. Pay attention. All that anybody asks of you is your honest opinion as one who is an expert in this field. Now, do you accept that statement as being a true description of the machine depicted?

The Witness: Well, not entirely.

The Court: All right. What portion of it do you not [fol. 2057] accept as being entirely accurate?

The Witness: The——

The Court: Take your time.

The Witness: —statement, "automatic designs."

The Court: That is the only part?

The Witness: Yes.

The Court: The statement about it being capable of producing designs automatically.

By Mr. Klots:

Q. That is the only thing you take exception to?

The Court: Don't shake your head.

A. That's right, yes.

Q. Now, did you ever see a document like that before, that I now hand you?

A. Yes. Do you want me to read it?

Q. No.

A. These are news letters.

Q. These are your news letters?

A. Yes. We sent them to dealers.

Q. Yes. And this says "For further information, please contact R. G. Ehrlich"?

A. Ruth Ehrlich, our vice-president. She does the publicity.

[fols. 2058-2060] Q. And this is the type of thing she sends out to dealers, is it?

A. Yes.

Mr. Klots: I ask to have it marked for identification.

(Marked Defendant's Exhibit 196 for identification.)

A. (Continuing) Dealers and distributors.

Q. Now I show you this which has been marked Defendant's Exhibit 196 for identification and ask you if you recognize that as one of these news letters that were sent out in connection with this Brother Flairmatic machine that we have been talking about?

A. Well, I would have nothing to do with anything that goes out as far as publicity, but I do know that this type—this is the type of letterhead they used. But as a specific letter——

Q. Look at it and see if it doesn't refresh your recollection that that has to do with——

A. —I wouldn't know——

Mr. Corcoran: I object, your Honor. She already testified.

A. (Continuing) I wouldn't know when or why they sent it. I do know that they sent this type of letterhead.

. . . . . .

[fol. 2061] Mr. Klots: I call the Court's attention to the fact that Defendant's Exhibit 196, this news from Brother, is headed "Sewing machine with a built-in look." It starts out by saying "The American trend towards fingertip ease and built-in features in their major appliances makes itself highly evident in the new Brother Flairmatic sewing machine."

I am now going to skip down to the middle of the page where it says: "This automatic unit will sew hundreds of decorative stitches without attachments. Everything is built right in. This means that with simple ease the sewer can embroider, monogram, satin stitch, blind stitch, zigzag, and sew straight, forward or reverse."

By Mr. Klots:

Q. Now I ask you, Mrs. Hovsepian, the Brother Flairmatic machine is a manually operated zigzag machine, is it not?

A. Right.

Q. We were talking a little while ago about fully automatic machines, and you had a certain definition and I asked [fol. 2062] you if you knew that other people had other definitions. I show you this little pamphlet and ask you if you recognize this as a pamphlet issued by your company.

A. Right.

Q. You do?

A. Yes.

Mr. Klots: Have it marked for identification.

(Marked Defendant's Exhibit 197 for identification.)

* * * * * * *

[fol. 2063] By Mr. Klots:

Q. I call your attention to the fact, Mrs. Hovsepian, that in this pamphlet issued by Brother it advertises some different sewing machines, does it not?

A. That's right.

Q. And it advertises, among others, a machine called the Galaxie, Model 230. Do you notice that?

A. Yes.

Q. And it describes it, does it not, as a fully automatic streamliner for fancy or plain sewing?

A. That's right.

Q. And, if I am not wrong, the Galaxie is a replaceable cam machine, is it not?

A. That's right.

The Court: That is the portion with the pencil line underneath it, Mr. Corcoran. You can see that.

Mr. Corcoran: I am sorry, sir?

The Court: I say that is the portion with the pencil underscoring.

Mr. Klots: Oh, yes. Didn't I rub that out?

[fol. 2064] The Court: No, you don't have to rub that out. Leave it in there. It saves time. It calls attention to what is the important part of the exhibit.

By Mr. Klots:

Q. I show you this advertisement which appears in the Sunday News, apparently, of October 23, 1960, and ask you if you recognize that advertisement published of one of the Brother machines.

A. Yes, I recognize the ad.

Q. You recognize the ad?

A. That's right.

Q. What type of machine is that, so far as making zigzag stitches is concerned? Does that have a manual device or a replaceable cam device, zigzag attachment, or what? Built-in cams?

A. That is a new model that I am not familiar with. I wouldn't like to make a statement on it because I am not certain. I did not demonstrate or use this particular model.

Q. You cannot tell by looking at the picture of it?

A. I might be able to tell, but I am not certain.

Q. What does it look like?

A. It looks like a manual zigzag.

[fol. 2065] Mr. Corcoran: Your Honor, I object to that. She answered the question.

The Court: She has answered it now. She is an expert and she is giving her expert opinion. She is giving her expert opinion. She says it looks like—what type of machine?

The Witness: Manual zigzag.

The Court: Would that be your opinion of the type machine this is?

The Witness: It appears so. I am not certain because I did not use it myself.

. . . . . .

[fol. 2066] Mr. Klots: It states: "Monograms, darns and mends, makes buttonholes, zigzag seams, overcasts, sews on buttons, embroiders, and straight stitching."

. . . . . .

Q. Mrs. Hovsepian, did you, within the last few months, apply for a position with the Singer Sewing Machine Company?

A. Yes, I did.

Mr. Corcoran: I object to that, your Honor.

The Court: Overruled.

Mr. Corcoran: I don't see—I am sorry.

The Court: It is clearly proper cross-examination. It may bear upon her credibility and her bias.

Q. And they didn't have a job for you?

[fol. 2067] A. Well, for the type of position I wanted they didn't have an opening at the time.

The Court: If she got the job, she wouldn't be here as a witness.

Mr. Corcoran: I guess not.

Mr. Klots: I have no further questions.

Mr. Corcoran: Your Honor, I think the witness has testified and would have testified whether she got the job or not.

The Court: She didn't get the job.

* * * * * * * *

[fols. 2068-2070] The Court: About five months ago, she said, she applied to Singer for a job.

Q. Was that while you were working with Brother that you went over there? Are you still working with Brother?

A. I still work for Brother.

Q. On a regular salary?

A. Not full-time, no, sir.

Q. Just what is your arrangement with them now?

A. About one or two days a week and whenever they need me.

Q. Just by special request?

A. Yes. Well, I go in one day a week, and if there are inquiries, letters that require my attention——

Q. And then, when there is a special job like an exhibit or a meeting?

A. A special show, that's right.

Q. Then you are hired for that specially?

A. Yes.

The Court: I see. All right.

* * * * * * * *

[fol. 2071] By Mr. Corcoran:

Q. Mrs. Hovsepian, I show you Defendant's Exhibit 142 and ask you to examine the decorative stitch on the jacket of this dress and on the pocket.

A. Yes.

Q. Could that stitch be made with a needle and thread?

A. Yes, by an expert embroiderer.

Mr. Corcoran: That is all.

By the Court:

Q. It would be quite a job, would it not?

A. Yes.

Q. It would require quite a skilful person?

A. Yes, very skilful.

Q. That is the kind of embroidery we used to get before they had the zigzag machines that you speak of, when everything was done by hand.

A. Yes, very fine.

Q. The Philippine and Madeira work and Italian work, and there were some American wives who used to be able to do it.

A. Yes, they did sew in those days.

* * * * * * *

[fol. 2072] Julius Margulies, called as a witness on behalf of the government, having first been duly sworn, testified as follows:

Direct examination.

By Mr. Elkins:

Q. Where do you reside, Mr. Margulies?

A. 66-12 102nd Street in Forest Hills, New York.

Q. Where are you employed, sir?

A. I am employed with Balin Export Company, Inc., 15 Moore Street, New York.

Q. Are you employed with any other operation, sir?

A. I am employed with the Elite Sewing Machine Corporation, same address.

Q. In what business is the Balin Export Company engaged?

A. Import and export of general merchandise and sewing machines.

Q. And what is the business——

Mr. Klots: I am sorry. I did not hear the answer.

[fols. 2073-2075] The Witness: Import and export of general merchandise and specific sewing machines.

Q. What is the business of Elite?

A. Importer and distributor of sewing machines.

Q. What are your duties with those companies, sir?

A. I buy and sell in it.

. . . . . .

[fol. 2076] Q. As a result of your experience did you obtain any indication of a demand by your customers for any particular type of household sewing machine?

A. Yes, I would say there was a specific demand. When the automatic machines came on the market, there was a specific demand for fully automatic zigzag machines.

Q. When you say "fully automatic,"——

A. I mean the built-in cam automatic machine. This was the term used.

Q. What did your customers say to you that indicated this to you?

A. Well, our customers said that they would prefer such machines because they have the built-in features, they are easy to operate, a dial just has to be moved in order to obtain the desired stitch, they don't have to look for the attachments to be inserted—for each cam to be inserted into the machine. It was a much more simpler operation to operate the built-in cam machine.

[fol. 2077] Q. Do you still carry a built-in cam machine?

A. Excuse me. I didn't hear that.

Q. Do you still carry a built-in cam machine?

A. No, we don't.

Q. When did you stop carrying the built-in cam machine?

A. We stopped carrying the built-in machine at the end of '58, I would say, the beginning of 1959.

Q. From whom had you been buying that machine, that is, from what trading company?

A. We have been buying our machines from Mitsui Company, Ltd.

[fol. 2078] Q. Will you tell us what happened, briefly, as to why you did not continue to buy from them?

A. Well, they advised us that they could no longer supply us with the built-in cam machines, and we lost our source of supply.

Q. And that was, you say, at about the beginning of 1959 or at the tail end of 1958 that you lost this supply of the built-in cam machines?

A. Yes.

Q. Can you tell us what your annual gross dollar-wise was of the household sewing machines in 1957?

A. Approximately $800,000.

Q. And in 1958?

A. Over $800,000.

Q. Over?

A. $800,000.

Q. And in 1959?

A. Approximately $100,000.

Q. To what do you attribute the decrease in your gross sales of sewing machines for the year 1959?

A. We were unable to have a complete line of sewing machines. We lost the source of the automatic machine and we were not able to get a replacement for this product which we handled, and our customers went away from us inasmuch [fol. 2079] as we were unable to give them a complete line, including the top of the line, the automatic machine.

Q. When you say "the automatic machine,"——

A. I mean the built-in cam machine.

Q. —you mean the built-in cam machine.

And you would refer to that as the top of the line?

A. Yes.

Q. Would you say it was the cream of the crop?

A. It was the cream of the crop.

Q. Did you make any effort to obtain another source of supply of built-in cam machines?

A. Yes, we did.

Q. What did you do, sir, in this connection?

A. Well, I made a trip in 1959 to Japan—I had some prior

negotiations before—in order to obtain the Sanwa built-in cam machine which was a very smart looking automatic machine.

Mr. Klots: What is the name? I didn't get the name.
The Witness: Sanwa.

Q. S-a-n-w-a?
A. S-a-n-w-a.
[fol. 2080] Q. You were saying that you were negotiating with Sanwa.
A. That's correct.
Q. What happened as a result of that, sir?
A. I went to Japan in May or June of 1959 and I met with the officials of Sanwa and told them of my readiness to purchase their built-in cam automatic machine under the condition that they would have to keep us harmless in case any problem arises out of the Singer patent infringement case going on, and they would not give us a guarantee, and we negotiated for approximately three-quarters of a year and Sanwa was not ready, could not see their way, they were afraid to give us a guarantee, and we abstained from buying these machines. The deal did not go through.
[fol. 2081] Q. Do you know, sir, whether or not this is the machine that you considered (indicating)?
A. The machine that we were negotiating for.

The Court: Showing the witness Exhibit number——
Mr. Elkins: Government's Exhibit 204.

Q. Do you know what a cam follower is, Mr. Margulies?
A. I am not an engineer. I have an idea what it is, yes.
Q. Can you, by looking at this machine, as you are looking at it now, determine or tell whether or not that machine contains one follower that moves to various cams or whether it contains one follower for each cam? Can you tell?
A. No, not by looking at the outside of the machine.

* * * * * * *

Cross-examination.

By Mr. Klots:

Q. Mr. Margulies, I think you testified that when you were receiving these built-in multi-cam machines you were purchasing them from Mitsui, is that right?

[fols. 2082-2089] A. That's correct.

Q. And they were made, were they not, for Mitsui by Sanshin & Company?

A. That's correct.

Q. And Sanshin & Company went bankrupt, did they not?

A. This is what I understand—at one time it was not actually bankrupt but had a reorganization.

Q. Yes. That was about when—1958 or 1959?

A. That was in the early part of 1959.

* * * * * * *

[fol. 2090] New York, June 22, 1961, 2 P.M.

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JOHN H. BILLINGS, called as a witness in rebuttal by the government, having been first duly sworn, testified as follows:

Direct examination.

By Mr. Weinstein:

Q. Professor Billings, will you please state your present address?

A. 2995 Dogwood Lane, Broomall, Pennsylvania.

Q. Do you hold any academic degrees, Professor Billings?

A. Yes.

Q. Will you state what they are and the universities and colleges from which you received them, and state the years in which you received them?

A. Bachelor of Applied Science, University of Toronto, [fol. 2091] 1912; Master of Science, Massachusetts Institute of Technology, 1915; Master of Science, Harvard University, 1915.

The Witness: With regard to those dates, your Honor, I had plenty of time to forget that.

The Court: Well, time goes by quickly as we get older, Professor, and we do not like to be faced with memories of the past.

Do you question the professor's qualifications, Mr. Klots, or Mr. Pettit?

Mr. Pettit: No.

The Court: So if you want to take the professor's statement—have you got his qualifications in writing?

Mr. Weinstein: Your Honor, there are certain qualifications that I would like to have in the record.

The Court: You go right ahead, but his qualifications—his educational qualifications are not going to be questioned by the defendant.

Mr. Weinstein: I think Professor Billings, for instance, has written a book covering cam mechanisms, and I would like to have that in the record.

The Court: Go ahead.

Q. Professor Billings, do you hold the degree of Doctor [fol. 2092] of Engineering from Drexel Institute?

A. Correct.

Q. Is that an honorary degree?

A. Yes.

Q. And you received that in 1959?

A. Yes.

Q. Was that at the time of your retirement from Drexel?

A. Yes.

Q. Have you ever taught engineering courses at any university or college?

A. Yes.

Q. Will you tell us briefly your teaching-experience?

A. Instructor in mechanical engineering, University of Missouri 1913-1914; instructor in mechanical engineering, Johns Hopkins University 1915-1916; lecturer and assistant professor University of Toronto, 1916-1919; professor of mechanical engineering and head of Department at Drexel Institute of Technology, 1919 to 1959.

[fol. 2093] Q. Were you Acting Dean of engineering from 1945 to '46?

A. Yes.

Q. What courses have you taught in your capacity as an instructor or professor? Just the ones that you have taught most recently, Prof. Billings?

A. Well, say within the last five years, machine design, kinematics, thermodynamics, materials of engineering, management, labor relations.

Q. Do any of these courses encompass within them a study and analysis of cams and cam mechanisms or cam materials?

A. In particular, machine design and kinematics.

Q. Are you the author of any books on engineering subjects?

A. Yes, Applied Kinematics, Van Nostrand Company.

Q. Do you remember how many editions of that book have been published, Prof. Billings?

A. Three.

Q. Do you remember the years, by any chance?

A. Oh, '31, '43—what was the last one? I forget.

Q. 1953? Does that refresh your recollection?

A. About that.

Q. Does your book discuss and analyze cam mechanisms [fols. 2094-2100] as well as other related mechanisms?

A. Yes.

Q. Do you belong to any professional societies?

A. Yes.

Q. Do you belong to a number of engineering societies?

A. Yes.

Q. Have you acted, in addition to your capacities as instructor and professor, as a consultant to numerous firms as a mechanical engineer?

A. I guess you could call it numerous.

Q. Can you tell us have you ever acted in the employment of the United States as a consultant to the Bureau of Ships?

A. Yes.

Q. Have you administered contracts for Army Ordnance at Drexel Institute of Technology?

A. Right.

Q. Have you ever received any patents on inventions?

A. Yes.

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[fol. 2101] The Court: Let me see if I understand the government's position now.

The three machines that the defendant points out as being non-infringing of the Gegauf patent are the Borletti—what are the other two?

Mr. Weinstein: There are three types. The Borletti is the one the professor is now testifying about. There is the type of machine which uses what we have loosely referred to as the barrelstave type of cam, and there is also the type of machine where the cam surfaces are concentric surfaces on a large plate. Those are the three types.

The Feather machine, your Honor, is the one which embodies the concentric cams; the Consolidated is one of the barrelstave type.

The Court: The government does not contest, does it, the defendant's statement that these three types of machines are non-infringing of Gegauf No. 2 or Gegauf No. 1?

Mr. Weinstein: We do not contest that.

The Court: You concede that.

Mr. Weinstein: Yes, we do concede that.

The Court: But it is your contention that although they are non-infringing machines, that they are not violative of [fols. 2101-2111] the Gegauf patents, that they are not substitutes for household use.

Mr. Weinstein: No, your Honor, I do not think we are necessarily taking that position.

* * * * * * *

[fols. 2112-2122] Q. Would you describe the type of cam mechanism found in this machine. If you need to, you may refer to Exhibit 112-A, which is before you, which pictures the mechanism.

The Court: Now we are talking about the Sankyo Seiki Consolidated Sewmor?

Mr. Weinstein: New Design, your Honor.

The Court: New Design, Model 770?

Mr. Weinstein: That's correct.

The Court: Does the government concede that is a non-infringing machine?

Mr. Weinstein: We do, your Honor.

A. The cams here are integral on a cylinder, such that to replace one cam it is necessary to replace the cylinder to replace all the cams.

It appears possible to get as many patterns as there are cams on this cylinder, which appear to be about fourteen; that in order to change any of those patterns or to get any additional patterns it will be necessary to put on a complete new cylinder.

* * * * * * *

[fols. 2123-2146] Q. Prof. Billings, I put before Defendant's Exhibit 115, which is the Vogue stitch Model D machine and ask you to examine the cam mechanism in that machine.

A. Similar to the previous exhibit, except for material of the cam.

Q. Is this a barrel stave type of cam, as we have described it?

A. Yes.

* * * * * * *

[fols. 2147-2157] New York, June 26, 1961, 2.00 o'clock p.m.

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[fol. 2158] Mr. Pettit: I think I will take the Borletti machine first, your Honor.

[fols. 2159-2164] Cross-examination.

By Mr. Pettit:

* * * * * * *

[fol. 2165] Q. The fact is that there is a cam on there that controls the feed, is there not?

A. Yes.

Q. Each of these cams that we have been talking about can be used in conjunction with the feed cam in combination?

[fols. 2166-2174] A. We specifically exempted——

Q. I didn't ask you what you did the other day; I am asking you now——

A. The feed cam——

Q. Not what you did the other day; what you would use now. Can they be used in combination with the feed cam?

A. They can.

Q. When they are used in combination with the feed cam, how many different patterns can you get?

A. A large number.

* * * * * * *

[fol. 2175] Q. I have asked whether you can compute the number of patterns that can be obtained from the cams that are now in that machine.

Mr. Weinstein: And I object to that question, your Honor.

The Court: Overruled.

A. This is the machine, I take it, that has cam or cams to control the rate of feed.

Q. You have it right in front of you, Professor.

A. I would need to have a definition as to what constitutes a different pattern. It is possible, to be sure, by varying a cam that controls the rate of feed to produce all kinds of changes in pattern—some large and some small. It is very difficult to get at the number of patterns that can be produced under a situation like this—you might say that an [fol. 2176] infinite number of patterns could be produced, but that would mean making infinitely small changes in the feed.

* * * * * * *

[fol. 2177] Q. I have asked whether this vast array of small variations that you mentioned is not insignificant from the standpoint of the practical use of the machine.

A. What do you mean by "insignificant"? The housewife may wish to make small variations in the length of stitch. She would get considerable variety out of that. It might not be reproduceable, but why shouldn't she do it if she wants to.

Q. Then your testimony is that this machine is qualified to produce an infinite variety of stitches for the woman who wants them.

Mr. Weinstein: Your Honor——

A. Theoretically, yes. Theoretically, yes.

Q. So that theoretically, if she wanted to, this machine [fol. 2178] could produce an infinite variety.

A. That's right.

Q. Now, Professor——

A. And there is nothing in that conclusion that is opposed to what I said the other day.

Q. I have not asked you that, Professor. You were speaking in terms of using the knob to change the density and in using the knob to change to right, center and left when you were talking of these infinite varieties, were you not?

A. Yes.

Q. Just take the cams and forget those knobs for a minute. If you are using this cam set in any one position for your density and for your left, right or middle, just assume that it is set and left there, and you are using various combinations of the cams that are in that machine, how many different patterns can you get?

A. Two.

Q. Two is all you can get by the use of those three cams, no matter what combination you put them in?

A. I am not including the regular stitch here as a pattern. The regular stitch would make three.

Q. Doesn't each of these cams have four positions in [fol. 2179] which it can be inserted in the machine?

• • • • • • •

[fol. 2180] The Court: Four holes, four positions, and you remarked "four holes" while holding something in your hand. What do you hold in your hand?

The Witness: A cam.

The Court: The cam that you have removed from this Borletti machine.

[fol. 2181] The Witness: That's right.

Q. That is the cam that controls the thrust of the needle, lateral vibration of the needle?

A. Yes.

Q. Now would you look at the cam that is on the other side of the machine, the cam that controls the feed.

A. Four positions likewise.

By the Court:

Q. What do you hold in your hand now, Professor?

A. This is the cam which controls the feed.

Q. And you have taken that off of Exhibit 114, the Borletti machine.

A. That's right.

Q. This controls the feed of what?

A. The feed of the cloth, the fabric, whatever is being worked on.

Q. And the other cam that you took off from this Exhibit 114, what did that control?

A. That controlled the lateral movement of the needle.

The Court: All right.

By Mr. Pettit:

Q. The machine can be operated with those two cams [fols. 2182-2193] working in combination, can it not?

A. It can.

Q. And by the use of variation of their relative positions, how many different patterns can you get?

A. 16.

Q. And you can use one of them in combination with two cams, can't you?

A. One in combination with——

Q. Either of the other two cams.

A. Yes.

Q. So that gives you four more.

The Court: It gives you how many more?

Mr. Pettit: Four more.

A. Four more.

Q. So you can count up to at least 20 already.

A. That's right.

Q. And each of the two cams can be used singly, without any combination with the other.

A. That's right.

Q. That gives you 22. Now, can you figure any way of getting another one?

A. Put on a different cam.

• • • • • • •

[fol. 2194] Q. This is your testimony, Professor——

The Court: No. Do you recall, Professor, when——

Mr. Pettit: Page 2110.

The Court: —you were examined, did you give this answer to this question that Mr. Pettit will now read.

Q. "Q Professor Billings, if the Borletti machine were redesigned to incorporate a number of built-in cams—say six, seven or eight—so that an operator could select from the built-in cams one of the six, seven or eight, would there be any great delay in going from cam number 1 at the back of the machine to the cam which would be closest to the front of the machine?

"A. Yes, there would be delay, of course, which would require complete redesign of the control mechanism of the follower.

"The present arrangement where there are only three positions is fairly easy to accomplish. It would be necessary to find, if you had seven cams, seven positions. Probably an entirely different type of mechanism would be necessary in [fol. 2195] order to make the follower stop on a particular cam. It would be a matter of design and development, but it probably would take a great deal more space, not only for the additional cams but for the controlled mechanism and to the extent that components increase the space in a machine, it generally means the machine itself has to be larger."

A. Leaves no space.

Q. Yes. But you were pointing out as one of the disadvantages that not only would you have to have increased mechanisms, you would have to have increased space to hold it and the increased space would make your machine be bigger.

A. Right.

[fol. 2196] Q. You were certainly pointing that out as one of the disadvantages, were you not?

A. That's right.

Q. Then do we have it that increased size of the head is in itself a disadvantage?

A. Increased size——

Q. Is in itself a disadvantage?

A. —is in itself a disadvantage.

Q. Then doesn't it follow that decreased size is in itself an advantage?

A. Yes.

Q. Well, then, doesn't this machine have a considerable advantage over the 401 and other machines because it does have a decreased size?

A. To the extent that it has a decreased size——

Q. That is an advantage.

A. —it is reasonable to say that it has an advantage.

Q. The mechanism in this one is very simple, isn't it?

Mr. Weinstein: Objection, your Honor. I think the term "simple" has——

A. It is a relative term.

Q. Would you consider it simple?

[fol. 2197] A. I would not consider any of these machines simple.

Q. Would you consider it more simple than the 401?

Mr. Weinstein: Objection, your Honor.

A. Yes.

Mr. Weinstein: Your Honor, more simple than what aspect of the 401? Are we comparing the two machines?

The Court: You make a little note on it. The Professor did not put any limitation on it, and you may ask him in redirect in what respect is it more simple than the 401. I will ask him and save you the trouble.

By the Court:

Q. In what respect is this machine more simple than the 401?

A. Well, it has fewer cams.

Q. Any other respect?

A. That affects the control, to be sure. It is a relatively simple matter to shift to any one of these three positions, and it requires a little more mechanism to make use of all these cams and particularly to be able to take intelligence from two cams at a time and transmit it to the lateral move-

[fol. 2198] ment of the needle.

Q. Would you say then that this Borletti machine is easier for the housewife to operate than the Singer 401?

A. Easier for the housewife to operate? Well, there again you are getting me into the realm of operating machines.

Q. From a mechanical point of view, from the point of view of a mechanical engineer, would you say that the Borletti should be, according to mechanical design principles, easier to operate by the housewife than the Singer 401?

A. I would say there wouldn't be much difference if the housewife is properly instructed in both these machines, not much difference.

Q. From a mechanical point of view you feel that they are really interchangeable, then, from the point of view of facility of operation.

A. Yes.

• • • • • • • •

[fol. 2199] By Mr. Pettit:

Q. The construction of this would be much less expensive than the construction of the 401 cam mechanism, would it not?

A. Much less?

Q. Let's use the word less.

Mr. Weinstein: Objection, your Honor. Are we talking about the Italian cost of manufacture or the American cost of manufacture?

The Court: He is talking about the American cost.

Mr. Pettit: I will come to that in a minute in another mat-
[fol. 2200] ter, and you will object then.

The Court: You anticipate. Mr. Weinstein may disappoint you.

A. Assuming that the two machines are manufactured under the same conditions of man-hour, cost——

The Court: In the same shop. Assume that they are produced in the same shop.

A. (Continuing) The same conditions, as the use of automatic machinery, and so on.

The Court: Same shop, same facilities, same labor.

A. (Continuing) I don't think there would be a great deal of difference between the cost of the two machines.

• • • • • • • •

[fol. 2201] Q. So in none of your testimony before were you taking into consideration the fact that a piece of mechanism may have been made in Japan whereas another piece of mechanism was being made in the United States.

A. That was not mentioned.

Mr. Weinstein: Objection, your Honor.

The Court: Overruled.

Q. Would you be kind enough to measure the distance [fols. 2202-2204] around this machine at the point where the mechanism is, in this Borletti machine (handing tape measure)?

The Court: What is the purpose of this?

Mr. Pettit: I would just like to show the extent to which this is smaller.

The Court: I can make a visual observation.

Mr. Pettit: Then I will withdraw the question.

The Court: It is quite apparent that the Borletti machine is elongated and narrower than the Singer machine. You don't have to have a tape measure for that. At least I don't, anyway, and I assume I am not as sharp as most people are.

* * * * * * *

[fol. 2205] By Mr. Pettit:

Q. The cam mechanism contained in the 401 machine. I would like to show you this stack of cams (handing). That looks to you the same as the stack of cams that you looked at in the 401 machine, does it not?

A. It does.

Q. That is composed of seven steel cams, is it not?

A. Yes.

Q. I would like for you just to suppose, Professor, that stack of cams is manufactured as follows:

1. Each of the seven cams is first rough-punched by press with an appropriate die from a strip of steel material so that the cam, its four holes, and its peripheral cam surface, with its various hills and valleys, are formed in the rough. Since each of the seven cams has its own particular cam surface configurations, seven different punching operations are necessary in order to produce the seven rough cams. Natu-

rally, in production, seven different punching dies are used, with the result that there are accumulated seven different groups of cams.

2. Rough cams have to be pressed flat in press by hand.

[fol. 2206] 3. The opposite two flat faces of each of the cams are then ground on a grinding machine, fed by hand by an operator, so that the thickness of the cams are uniform. Again, the cams are maintained in groups, all of the cams of any one group having the same peripheral design.

4. The various cams are then individually shaved by an Essa press with an appropriate die, with the result that the peripheral cam edges of each cam are finished to size. This requires seven individual shaving operations, since there are seven different steel cams. Again, in production, we end up with seven different groups of cams.

5. The cams are then placed in a rumbling machine for the purpose of removing the rough edges of the cam surfaces. The cams are placed in the rumbling machines in groups with all of the cams in any one group having the same peripheral design.

6. Deburr center hole of cam.

7. Seven different cams comprising a set are then hand assembled together in proper sequence and placed in a jig with the seven cams being placed in proper phase relative to each other by means of a pin which is inserted into one [fol. 2207] of the two holes provided in the cam during the first punching operation.

8. Each unit of seven cams is then hand-inserted into a boring machine for the purpose of boring the positioning hole to proper size, which hole receives the positioning pin.

9. Each unit of seven cams is then taken to the 401 machine assembly line and is hand-inserted into a 401 machine so that the stack will be mounted upon a vertical shaft and thereafter locked upon such shaft by means of a plate and several locking screws.

I would like to ask you, Professor, if that is not quite away from the assumption of pressing out 20 dies at one time and operating with great efficiency?

[fol. 2208] Mr. Weinstein: Objection, your Honor, on two grounds. The hypothetical question is based on facts not in

evidence, and I think the entire inquiry is irrelevant to this case.

The Court: Overruled.

Mr. Weinstein: This entire line of inquiry——

The Court: I am going to take it.

Q. That is a far different assumption—let me strike the question out; that is quite a different assumption from the one you made yesterday, isn't it?

A. Yes, it is.

Q. Now if you were told that that is the process, would you say that the manufacture of one of these barrel stave cams is a more expensive operation than the manufacture of the Singer 401 stack?

* * * * * * *

[fols. 2209-2213] A. I would say that it might be.

Q. Would you testify that in your opinion it is?

A. Provided the surfaces of this cam are machined, I would say that it is.

Q. But you do not know whether the surfaces of that cam——

A. No, I do not know.

* * * * * * *

[fol. 2214] Q. And you have doubted that this one has been machined?

The Court: By "this one"——

A. I am doubtful about the machining on either one of them.

Q. Then if they are neither machined, are you testifying that they are both molded probably?

A. Yes.

Q. And even though they are both molded, it would be your testimony that you believe it would cost as much to make a plastic molded cam as it cost to make the Singer 401 stack of cams?

A. Substantially. I beg pardon. That last question, did I [fol. 2215] understand that you said machined or unmachined?

Mr. Pettit: Will you read the question back, please.

(Question read.)

A. My answer would be provided they are machined, provided the plastic cams are machined.

Q. Now I will ask you the question once again. Assuming that they are not machined, then what would your assumption be?

A. My assumption would be that these would cost less than the Singer cams.

Q. And they would cost considerably less, wouldn't they, Professor?

A. Could be.

* * * * * * *

[fol. 2216] Q. I would like for you to look at this machine which was put in evidence by the government, Exhibit 207, and I ask you if that does not have the same type of cam.

A. Yes.

Q. That is a much larger cam than the one that is in Exhibit 113?

A. The outer cam is larger than the outer cam on this (indicating).

Q. Call it a plastic cam—just the one unit—whatever you [fol. 2217] call it—this one is larger than the plastic cam, isn't it?

A. Larger in outside diameter.

Q. In outside diameter.

A. Yes.

Q. In circumference.

A. Yes.

Q. How many cams—have you looked at this closely enough to know how many cams there are on that plastic one?

A. I think I counted them once but I don't remember the number. It is a considerable larger number than this one has (indicating).

Q. Around 14 of them?

A. Could be.

Q. As compared to 7 on the Singer?

A. Yes.

Q. They could give away the inner cams entirely and have

far more cams on there than the Singer has on its 401, couldn't they?

Mr. Weinstein: Your Honor, we did not hear the beginning of it. May we have that question read back?

The Court: Yes.

[fol. 2218] (Question read.)

A. By "they" you are referring——

Q. To the manufacturer.

A. Of this machine?

Q. Yes.

The Court: And by "this machine," what exhibit?

A. Could give away——

Q. Could eliminate the inner two or three or four of the inner cams and still have many more cams on it than obtained on the Singer 401 machine?

Mr. Weinstein: Your Honor, it is obvious that 14 is larger than 7. I do not know that we have to pursue that.

The Court: This is preliminary. I will permit it.

A. To be sure, if you took out the four inner cams you would still have more cams than the 401.

Q. That is a much cheaper piece of mechanism to make than Singer's stack of cams, isn't it?

A. I would judge that that is cheaper to make.

Q. And considerably cheaper.

A. Than the Singer cams.

Q. And considerably cheaper, wouldn't you say?

[fols. 2219-2256] A. Considerably.

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[fol. 2257] New York, June 27, 1961, 1:30 o'clock p.m.

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[fol. 2258] Colloquy Between Court and Counsel

Mr. Pettit: I would like to call attention to the fact that this testimony that they have offered is not limited to the relevant market. They have several times referred to the

fact that it would show the effect of the conspiracy. Now, the conspiracy is to keep out Japanese machines, and they have argued that this increased cost that they claim came about has handicapped these Japanese that the defendant is accused of excluding.

It would seem to be highly relevant to show that costs in Japan, when translated into competition in the United States with the United States, is utterly insignificant for any practical purpose.

The Court: Well, I think we have sufficient to establish that in so far as it is necessary to do so in the prices which have been stipulated.

Mr. Pettit: Well, I think the Court might take judicial notice of the fact that the cost of manufacture in Japan is so much lower than in the United States that that is what causes one of the difficulties.

The Court: It is almost a fact of common knowledge, but I do not think I am required in this case to do it. You [fols. 2259-2262] have stipulated the prices of these various machines here in America.

Mr. Pettit: Yes.

The Court: My recollection is that there is a considerable variance in the price.

Mr. Pettit: Correct.

The Court: That the Singer or a comparable machine has to bring a larger price than any of the imported machines, either Japanese, Italian, Swiss or German machines. I think that we have enough evidence in the case and you have an exception to my ruling.

Mr. Pettit: Thank you.

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[fol. 2263] EDWARD J. HERBST, called as a witness in surrebuttal by the defendant, being first duly sworn, testified as follows:

Direct examination.

By Mr. Pettit:

Q. Where do you live?

A. 15 Sandra Circle, Westfield, New Jersey.

Q. And where are you employed?

A. Elizabeth Product Engineering Laboratory, Elizabeth, New Jersey. It is located at the Elizabeth factory of The Singer Manufacturing Company.

Q. You are employed by The Singer Manufacturing Company?

A. That's right.

Q. What are your duties there?

A. I am the chief development engineer for family machines.

Q. As chief development engineer what are your duties and responsibilities?

A. I am responsible for a development group which prepares the specifications for machines and develops new machines.

Q. As part of your duty, the study and research and development of less expensive parts, less expensive assemblies is made?

[fol. 2264] A. Yes, this is one of our duties. We actually have a small group solely responsible for cost reduction in our existing machines.

Q. Are you in charge of that group?

A. Yes.

Q. How long have you been employed in the research department of The Singer Manufacturing Company?

A. Eleven years, since graduating from college.

Q. Would you please state the degrees you have had from colleges.

A. I have my bachelor's degree in mechanical engineering from Stevens Institute of Technology. I also have my master of science degree from the same institution.

The Court: A good school.

The Witness: Yes, sir.

The Court: Still in Hoboken?

The Witness: Yes, sir.

Q. Do you belong to any professional societies?

A. Yes. I belong to the Society of Professional Engineers and I am a member of the Society of Plastic Engineers.

Q. What is the Society of Plastic Engineers?

A. This is a society which is of course primarily con-
[fol. 2265] cerned with the engineering of plastics, and as such we have a meeting each month and new developments in plastics are presented. We also are very active—we take part in the Plastics Show that is held every year and a half.

Q. Are you an investor in the mechanisms relating to sewing machines?

A. Yes, I would consider that I am an inventor. I have eight patents that have already been issued and I have four more that are pending.

Q. In your capacity are you acquainted with the processes that are used in the manufacture of the stack of cams embodied in the Singer 401 machine?

A. Yes.

Q. Have you prepared a statement setting forth the main operations, the principal operations contained in the creation of that unit?

A. Yes.

Q. I show you a document and ask you if that was prepared by you.

A. Yes, this was prepared by me.

Q. Do each of the operations set forth on that sheet occur in the process of making and assembling this unit?
[fol. 2266] A. Yes.

Q. Are there various other processes and steps not listed there?

A. This is only the primary steps. There are other handling and cleaning steps but I have deleted them from this listing of the operation.

Mr. Pettit: Your Honor, I offer this in evidence.

The Court: Being a simplification of his testimony in short?

Mr. Pettit: That is the statement I read yesterday to the witness that was on the stand then.

The Court: Yes.

Mr. Weinstein: I would like to read it, your Honor.

The Court: It is simply offered as a statement in lieu of testimony.

Mr. Pettit: I will be glad to go over each one.

The Court: He would have to read it off anyway.

Mr. Weinstein: There is no objection, your Honor.

The Court: Received in evidence.

[fols. 2267-2270] (Received in evidence as Defendant's Exhibit 200.)

Mr. Pettit: I would like to refer to page 2205 of the record where this statement was read.

The Court: Yes.

* * * * * * *

[fol. 2271] The Court: Mr. Pettit, what is the purpose of this testimony so I can orient it in my own mind?

Mr. Pettit: I want to show that the operations required to build this stack of cams with these steel cams is a very tedious, expensive operation and must be done with great care and that there is literally no comparison between the cost of producing the stack of cams we have in the 401 and the cost of producing almost any other of these cams that the government has referred to. They have tried to draw the picture that there is some disadvantage and that other people have to make more expensive equipment.

The Court: Your point is that if they wanted to spend the money on these other non-infringing machines they could produce at a little more expenditure or additional expenditure a non-infringing machine which would be as mechanically perfect as the 401, is that your point?

[fol. 2272] Mr. Pettit: No, your Honor. It is sort of just the reverse of that. The government has tried to claim that these Japanese manufacturers are at a great disadvantage because they would have to adopt a form of mechanism that is expensive to make, more expensive than if they made this stack of steel cams with the follower moving up and down. It is utter and complete nonsense, and I think anyone by just looking at the machine could tell that it is not true, and I want to build by this witness a foundation from which to then show that the machines that the Japanese make are not as expensive to make as the Singer 401 type of machine.

The Court: Does the government concede that or dispute that?

Mr. Weinstein: Your Honor, the government did not introduce cost into this case except in a very passing sense. We merely wish to show that if a barrel stave cam became defective you had to throw out the barrel, that there was no such thing as replacing a single cam. If Mr. Pettit were to make a true comparison he would have to prove by cost data that it was cheaper to replace a single cam from the 401 machine—I mean more expensive to replace a [fol. 2273] single cam from the 401 machine than the entire barrel, all of which we say has no relevance to the case, but if he is going to make that point, that would be the point he would have to make.

We merely wish to show that the barrel stave and the annular cam and the Borletti machine had built-in design difficulties.

The Court: Coming back now to my question, does the government dispute that the Japanese machines are capable of being produced as they are presently designed at a cheaper price or cheaper manufacturing cost than the Singer machines?

Mr. Weinstein: Your Honor, we have no knowledge as to the specific cost of the Japanese manufacturers, and this witness is not testifying as to the cost.

The Court: No, we are talking not about that. We are talking about the mechanism. It is quite apparent to me that it costs considerably more for Singer to turn out the stack of cams than it would cost to turn out this plastic set of cams on one disk. That is obvious to anybody's eyes and using a little bit of common sense.

Mr. Pettit: May I add, your Honor, that he has not, [fol. 2274] frankly, so stated in his testimony. The record is filled with attempts by the government to show that the relative cost of this machine sitting in front of the witness is more than that of the 401. He says that it was casual, but he would leave the record with testimony from his expert witness that it costs more to build that set of cams in that mechanism than it would cost for the 401.

The Court: You are referring now, for the record, to which machine? They are two before the witness.

Mr. Pettit: The machine that is marked 112, and this other machine which is the government's 207, I believe.

The Court: Now, they both have the barrel type cam?

Mr. Pettit: Yes. Now, if he wants to concede that the cost of manufacture of these cams, of these plastic cams is less than the cost of the manufacture of the Singer 401 we can drop this line of testimony.

Mr. Weinstein: First of all, your Honor, we could not concede it because we don't know, and we do not think Mr. Pettit knows.

[fol. 2275] The Court: Well, I will ask him as an expert. I will ask him and save a lot of time here.

You are familiar with the cost of manufacture of various type cams?

The Witness: Yes, yes.

The Court: Can you give us your opinion as to whether or not it would be more expensive, more or less expensive to produce the barrel type cams shown on these two machines now before you than it would be to produce a stack of cams such as is produced by Singer for its 401?

The Witness: This one would be a great deal less expensive.

The Court. Now, "this one" is——

The Witness: Molded cam stack.

The Court: That is the molded barrel cam?

The Witness: Right.

The Court: That is on what machine so we get it?

The Witness: It is on the Vogue stitch.

The Court: The Vogue stitch. That is the Japanese machine?

The Witness: Right.

The Court: You say that would cost more or [fol. 2276] less?

The Witness: This would be a lot less expensive than the 401 cam stack. You get your surfaces molded in the die and it is a less expensive way of——

The Court: An inexpensive operation?

The Witness: Right.

The Court: That barrel cam or that Vogue stitch is made of plastic?

The Witness: Right. And this one is even less than this one.

The Court: You are now pointing to the Universal 113.

The Witness: Right.

The Court: And you say that is less than the Vogue stitch barrel cam?

The Witness: Right.

The Court: The 113 Universal has a disk cam.

The Witness: Right.

The Court: These two are much cheaper than the Singer 401.

The Witness: Right, right.

The Court: And the 113 the plastic disk cam is cheaper [fol. 2277] than the barrel type?

The Witness: Right.

The Court: On the Vogue stitch.

The Witness: Right.

The Court: What about this one here, what name is on that?

The Witness: This is the Sewmor.

The Court: The Sewmor, Exhibit 112.

The Witness: Right.

The Court: What about the cost of that cam, that barrel type cam?

The Witness: The cost of this one is increased over this one because——

The Court: Wait, now, you say this one and this one. The cost——

The Witness: Of the Sewmor is more expensive.

The Court: The Sewmor, 112, is more expensive——

The Witness: Than the Vogue stitch.

The Court: The Vogue stitch is what number so we get this all on there? It is the dark blue, isn't it?

The Witness: 115.

The Court: 115.

[fol. 2278] The Witness: Due to the fact that—you can see here, they actually machine each surface on this.

The Court: On the barrel type?

The Witness: On the Sewmor.

The Court: Sewmor, 112, I think it is. On the 112 the cams on the barrel type are separately machined?

The Witness: Right.

The Court: Whereas on the Vogue stitch and the Universal they are molded cams?

The Witness: Molded, right, right.

The Court: All right. That is very plain to me. It is quite apparent, too.

All right, I think that establishes it well enough, Mr. Pettit.

Do you want to put this stack of cams in evidence now, the Singer cams?

Mr. Pettit: Yes.

The Court: To show the various steps of manufacture.

Mr. Weinstein: May we see them?

The Court: Any objection?

Mr. Weinstein: No objection, your Honor.

[fol. 2279] The Court: All right, received in evidence.

(Received in evidence as Defendant's Exhibit 201.)

The Court: Apparently, then, the Singer machine, particularly with relation to its cams, is a precision machine, isn't it?

The Witness: That's right.

The Court: Precision built.

The Witness: Right.

By Mr. Pettit:

Q. Mr. Herbst, is the stack of cams manufactured for the 401 machine adapted to be taken apart and have inserted in it a different cam than the cam that was originally in the stack?

A. No.

Q. Now, will you state why it is not adaptable to that process?

A. Well, I would like to use an assembly drawing because I think this would be the best way for all parties concerned to understand it. Actually this assembly drawing which we have is No. 172,115. It illustrates the last operation as far as the cam stack is concerned. Actually the cams are assembled as a stack and the positioning pinhole is bored to a tolerance of a half a thousandth [fol. 2280] of an inch.

. . . . . .

[fol. 2281] The Court: There is no play then?

The Witness: There is no play. This is a nice slide-fit precision job as far as the fit is concerned. However, the distance between the center of this hole and the center of the shaft——

Q. Center of the shaft hole?

A. Shaft hole which the cam is mounted about has a necessary tolerance of .003. That is, your distance from the center line of the hole in the cam to the bored hole which we hold to a half a thousandth is held to .003.

Q. That is the maximum variation?

A. That is the maximum variation. In other words, it could vary—if you want to get the specific dimensions—.720¼ to .717¼. This is how close we actually hold those, that tolerance, or that dimension.

Q. You are speaking of the difference between the hole in which the shaft——

A. The distance between the center of the positioning [fol. 2282] pin hole.

Q. That is the shaft hole upon which the stack of cams is mounted?

A. That's right.

Q. And the positioning pin?

A. Right. Now, actually we get this cam stack and we bore this hole. This means that as far as our limits are concerned, which are necessary limits, and actually as far as manufacturing is concerned the position of this pin can vary from one stack to another by a total distance of .003.

Q. Therefore it would be quite possible to take a cam from another lot and find that you were unable to put it in any particular set of cams?

A. That's right. You may be fortunate enough if—let's say you got a set of cams that were bored the same day and that machinery was set and there wasn't one bit of movement as far as our machinery was concerned. It may be possible to have some cams that are interchanged, but as far as variation is concerned in production it has not been a practical thing to interchange cams from one stack to another.

Q. Now, if one of these should become inoperative or [fol. 2283] broken, what is the factory recommendation on the way to handle that particular problem?

A. The whole cam stack is replaced.

* * * * * * *

[fol. 2284] The Court: What is a stack of cams like that worth in the 401?

The Witness: Your Honor, I have no idea as far as the actual cost of the cam stack.

The Court: Does it cost more than the plastic disk cam as shown on the machine that you had before?

The Witness: You mean an individual metal cam versus a plastic cam?

The Court: No, the stack of cams that you say has to be replaced.

The Witness: Oh, yes, definitely, a great deal more.

The Court: Does it cost more than the barrel type plastic cam on those machines made in Japan?

The Witness: Yes.

The Court: So the cost of repairing the Singer 401 by replacing metal cams if they are injured or marred is more than replacing one of these plastic cams?

The Witness: That's right.

[fol. 2285] By Mr. Pettit:

* * * * * * *

[fol. 2286] Q. Would you tell me whether in your opinion these plastic cams have any advantages from a manufacturing standpoint?

A. Yes, from a manufacturing standpoint the plastic cams do have the advantage of economy of mass production. Here you have a plastic cam where if you look at this you can actually get all of this into one part of your die. All of the annular cams that are developed on this thing you get into one part of your die. It permits the use of multiple cavities in production. In other words, you can manufacture these at the rate of four or eight parts per shot.

Q. This entire disk you are speaking of?

A. Yes, the entire disk with your various cam surfaces on it. In doing this you also are getting the advantage of a very smooth surface. In other words, whatever surface is developed in the cavity of your mold will be reproduced in the molded part.

You just look at this surface here. You will see that it is a mirror-like surface actually, and this is the result of polishing and dressing down your mold surface. So naturally this gives you a surface that your follower

[fol. 2287] is running against which is a very smooth surface.

In the case of the metal cams, as you saw by the operations that we performed, we not only have to punch the shape of the cam but then we have to trim it to get this smooth surface.

So this is one of the advantages that you get with a molded cam surface.

In addition to that, of course, you are getting the advantage of weight. The fact that this is a much lighter component compared to our cam stack—and I think if we just hold one cam stack in one hand and the other in the other hand you get an appreciation of the difference in weight, which is important particularly when you are selling a machine, I would say a portable machine in the United States.

Q. Does that let you make other parts lighter also, the annular cam?

A. You mean as far as the—in what respect, the rest of your mechanism?

Q. Yes. Would your whole head be smaller?

A. Oh, yes, as a result of developing, making this part smaller, it permits you to make the arm and your housing, your top cover a much smaller assembly, and this results [fol. 2288] in economy in that, first of all, you are using less material for the arm and the top cover; secondly, you are faced with less finishing costs. In other words, your finishing costs are directly related to the amount of area that you have to polish and paint and as a result the whole configuration or whole assembly becomes a less expensive assembly.

Q. What about hand operations in handling the cams in construction? Do you handle the plastic cam in the course of manufacture more or less or the same that you would handle the various cams in the Singer stack?

A. Oh, the Singer stack cams would be handled many times over what this plastic cam would be handled. I mean you would actually be getting this part, I would envision, as a fully molded part without any operations on it.

Q. And you would have no problem there of the tolerance of .001 of an inch with the thickness of this cam, would you?

A. You mean the thickness this way (indicating)?

Q. The depth, yes.

A. Well, on this cam the dimensional thickness would [fol. 2289] be predicated by how the dies closed, but as far as the relationship of one cam surface to the other it is established by the die itself; in other words, how you establish this cam surface relative to the other surface is determined in your die cavity, and if you make your die cavity correct all these surfaces will come out relative to one another correct, and as a result you have a mass production item that does not have the variations that you would experience with a multi-cam construction where each individual cam is a separate component.

Q. Now, from forcing your plastic material into your mold, if you should press it apart slightly, would——

A. That's right, you might have some variation from the top of this surface to the very bottom. As far as variation between these points (indicating), it would be accurate.

Q. And a variation due to the factor I have just mentioned would be of significance or not in the individual cams? Put it this way, does it make any difference whether this cam is .002 of an inch thicker than another cam?

A. Oh, no, it wouldn't. It wouldn't. You just look at the [fol. 2290] travel of the follower and .002 isn't going to make any difference over a surface of six cams. In the case of this one it is many—well, it is quite a few more cams introduced there.

Q. Now, if you want to make a larger cam you can just have larger molds and put on the additional cam surfaces in the mold.

A. That's right.

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[fol. 2291] Q. Would you tell me if you know how many times the individual cam contained in the 401 machine is handled in the process of its manufacture and assembly, and I mean handled by hand?

A. Well, I know it is in excess of 18. I think it is about 18 to 21 times it is handled by hand. The operation sheets would show specifically the number of handlings in the process.

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[fol. 2292] The Court: In your opinion would it cost more to produce and market this Borletti machine from a manufacturing point of view than it would the Singer 401?

The Witness: In my opinion it would be less expensive to produce than the Singer 401.

The Court: On what facts that you observed by a study of the machine do you base that statement?

The Witness: On the basis of a cursory examination of the machine. Number one, you can see that the size of the arm is smaller.

The Court: The size of what arm?

[fol. 2293] The Witness: The frame of the machine.

The Court: The outside frame, the body frame is smaller?

The Witness: Yes.

The Court: What else?

The Witness: The number of parts that they are actually using in their mechanism is a very good indication as to the relative cost of manufacture. I have experienced this time and time again in the past.

The Court: The more parts, the more the manufacturing costs go up?

The Witness: Right.

The Court: The simpler you can make the machine, the less the cost of production?

The Witness: That's right, your Honor.

The Court: Anything else?

The Witness: The fact that they are using the movable plastic cams is an indication of a less expensive cost of manufacture. The arm is a die-cast arm.

The Court: You say the removable plastic cams that you find in this Borletti machine cost less under similar circumstances of production than to produce the built-in metal cams such as Singer uses?

The Witness: Yes. These cams are flat, easily molded [fols. 2294-2298] cams.

The Court: Those are molded plastic cams?

The Witness: That's right.

The Court: Against Singer's stamped machine-tooled cams?

The Witness: Right.

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Cross-Examination.

By Mr. Weinstein:

[fol. 2299] The Court: He is here to give his opinion as an expert. Is this barrel cam in this Vogue machine a molded cam?

The Witness: Yes.

[fol. 2300] Q. Would not the cost of this cam depend in measure upon the material used to produce it, the plastic that is injected into the mold?

A. Yes. If you were going to use nylon, for example——

Q. Just answer the question.

A. The material cost is a very significant factor.

Q. Very significant?

A. I would say—you are talking relatively. Material-wise, material can cost 60 cents a pound or $1 a pound, but it depends upon how much material they are actually using. It might make a different of two cents to manufacture that part, in going from an inferior plastic to an expensive plastic. As far as two cents is concerned, the Singer organization, we would pick the more expensive plastic. Then it becomes an insignificant thing if you want to achieve functionally the best design [fols. 2301-2305] possible.

Q. Do you know whether or not this is an expensive plastic or an inexpensive plastic?

A. I cannot tell on the basis of the appearance of it, but it appears as though it is an injection-molded plastic, the surface qualities of the cam are good, and I venture to say it represents a fairly good plastic.

[fol. 2306] JOHN ROBERT CURRERI, called as a witness in surrebuttal by the defendant, being first duly sworn, testified as follows:

Direct examination.

By Mr. Pettit:

Q. Will you state where you live.

A. 291 Vermont Avenue, Oceanside, New York.

Q. What is your business or profession?

A. I am professor of mechanical engineering at the Polytechnic Institute of Brooklyn.

Q. And what degrees do you have?

A. I have a bachelor's degree of mechanical engineering from the Polytechnic Institute in 1943 and a master's degree from the Polytechnic Institute in 1948.

Q. And do you belong to any societies?

A. Yes. I am a member of the American Society of Mechanical Engineers and the American Society of Engineering Education.

Q. How long have you been teaching, Professor Curreri?

A. I have been teaching since 1948.

Q. Have you testified as an expert witness in other cases?

A. Yes. I have testified a number of times as an expert [fol. 2307] in various cases.

Q. Would you be kind enough to look at the cams that are on the machines before you, the Alden's Cam 3-in-1, which is Government's Exhibit 207 and the Universal machine, Defendant's Exhibit 113.

The Court: As you refer to each machine, refer to the name and to those numbers.

Q. You have seen the other set of cams in the Singer 401, have you not?

A. Yes.

Q. Could you tell us whether in your opinion there are any advantages in having plastic disks with the cams on the top surface as compared with the stack of cams in the steel disk found on the Singer 401 machine?

A. There is an obvious advantage in terms of cost required to produce the two. In terms of it being far simpler and far cheaper to produce the plastic cam as compared with the difficulty involved in machining the stack of cams of the 401.

Q. From the standpoint of pressure angle, will you state the problems and disadvantages in the plastic cam.

A. You could not really state the problem in terms of the material. The problems would be in terms of other [fol. 2308] factors associated with design. There are no great problems involved in either of these considerations.

Q. Do you consider that there are pressure angle problems in respect to having smaller cams on the inside of the plastic cam than on the surface?

A. Yes, there are problems as the diameter becomes less. As I have examined this machine, Exhibit 113, it did not seem to me the problems precluded any successful design.

Q. Would you say there are any advantages in having a large plastic cam such as the one that is in Government's Exhibit 207?

A. Certainly. As the diameter of the cam increases there is an advantage in reducing the problems incurred by pressure angle. There is also an additional advantage in these cams in so far as they are essentially transverse cams, even though they are mounted about a center. This means that the pressure angle is reduced because of the fact it is a translated cam, completely mounted about a central axis as compared to a rotary cam.

Q. By that do I understand you to mean that there is an advantage from a pressure angle standpoint in taking information from the surface of the cam rather than from [fol. 2309] the periphery of the cam, assuming the condition is the same?

A. Yes. There is some advantage in terms of reducing the pressure angle because it is translating rather than actually in the rotary case rotating.

Q. I would like to show you Defendant's Exhibit 199 for identification, page 61. Are you acquainted with Mr. Rothbart's book?

A. Yes, I am.

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[fols. 2310-2311] Q. Is it your opinion that Prof. Rothbart is indicating as you have so testified here in his book?

A. Yes.

• • • • • • •

[fol. 2312] Q. I would like for you to look at Defendant's Exhibit 113 and I ask you whether in your opinion the cam follower is offset there.

A. Yes, it appears as though there is a slight offset in the nature of the follower of this machine. It isn't much, but there does seem to be some.

• • • • • • •

[fol. 2313] Q. Does the fact that there is the slight offset indicate anything to you as to the existence or non-existence of substantial pressure angle problems in the cam that is on the machine?

• • • • • • •

[fol. 2314] A. It would seem to me that since there is very [fols. 2315-2319] little offset in this cam follower, that in the event there was relief sought in terms of reducing the pressure angle, this could have been done by increasing the offset.

Q. Have you looked at the Singer 401 follower?

A. Yes, I have.

Q. Is that offset?

A. Yes, that is definitely offset.

Q. To a degree greater or less than the machine before you?

A. This is noticeably more offset.

• • • • • • •

Cross examination.

By Mr. Weinstein:

• • • • • • •

[fol. 2320] Q. Is it true that certain stitch patterns could [fol. 2321] not be reproduced solely because of critical pressure angles?

A. By examining the machines that I have examined, it does not seem to me that the designer was prevented from duplicating whatever stitch pattern he wanted because of a pressure angle problem.

Q. Stitch pattern on the cam?

A. Whatever stitch pattern appears on the machine.

Q. But certain stitch patterns could not be reproduced if the designer chose to put them there because of the factor of pressure angle, would that not be true?

A. I don't know what kind of stitch patterns would be so restrictive as to prevent the design of a workable cam in any of these machines.

Q. Isn't it true that some cam designers start out their design plans by fixing a maximum pressure angle and then design the other cam factor subsequent to that first factor of being fixed?

A. Yes, I think that is so.

Q. If that is true, isn't it true that if you fix the maximum pressure angle on a given cam and you have a certain space limitation in a machine, that in order to reproduce [fols. 2322-2328] some stitch patterns you either have to reduce the number of cams on the annular disk or increase the amplification mechanism?

A. I don't see this as a real restriction in the sense that you have other factors that are controllable to offset this difficulty. You have the factor of, for instance, putting the least difficult pattern on the inside. You have the factor of the amplification of the linkage. You have the factor of the offset of the cam, of whether it be transverse or whether it be rotary. With all of these factors, and for the sizes that I see before me, these are not so small that they would preclude the possibility of designing an absolutely workable cam for these machines.

* * * * * * *

[fols. 2328a-2349] Reporters' Certificate to foregoing transcript omitted in printing.

* * * * * * *

[fol. 5768] In United States District Court

Court's Exhibit 4

United States District Court, Southern District of New York

Civil Action No. 154-108

United States of America, Plaintiff

against

The Singer Manufacturing Company, Defendant

Stipulation

It Is Stipulated and Agreed that:

1. In each of Italy and France

(a) the scope of the grant secured by Letters Patent in each such country is determined by the total disclosure of the patent document.

(b) the claims or resumé appearing at the end of the patent document are merely the patentee's brief summary of his invention as set forth in the patent document.

(c) the claim or resumé has no legal effect whatever.

(d) the validity and scope of the patent grant are determined by the Court, in a nullity action or in an infringement action in which there is a cross-action for nullity. The Court compares the total disclosure of the patent document to the prior art furnished the Court by the adverse party and determines the extent of the invention's advance over the prior art.

(e) the nullity proceedings referred to in (d) above [fol. 5769] are *ad hoc in personam* proceedings and are determinative only as between the parties. Other parties would have to go through the same proceedings if their rights vis-a-vis the patents were to be determined.

(f) in all such proceedings the Courts construe the scope of the patent with respect to the subject matter

of the litigation. Attacks on such patents only result in determinations as between the parties and the patents stand in all other respects for similar determinations of their scope and validity vis-a-vis other parties.

2. In Germany and Brazil there is a rebuttable presumption of validity of the patent. The validity is attacked in a nullity proceeding in which proceeding the Patent Office or Court is not bound to accept the scope of the claims of the patent as issued and is at liberty to, and frequently does, redefine the precise scope of the patent claims in its decision. Moreover, in infringement actions the Court may, and frequently does, redefine the scope of the patent claims.

3. In Great Britain there is a rebuttable presumption of validity of the patent. The validity may be attacked in a nullity proceeding and, although the Court never broadens the claim of a British patent, in nullity as well as infringement actions, it may, and frequently does, limit the scope of the claim depending upon the necessity shown by the [fols. 5770-5786] prior art.

Dated: New York, New York, May 16, 1961.

William J. Elkins, Attorney for Plaintiff. Winthrop, Stimson, Putnam & Roberts, By Arthur E. Pettit, a Member of the Firm, Attorneys for Defendant.

So Ordered: May 16th, 1961.

Sylvester J. Ryan, Chief Judge.

[fol. 5787] IN UNITED STATES DISTRICT COURT

COURT'S EXHIBIT 7

UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF NEW YORK

Civil Action No. 154-108

UNITED STATES OF AMERICA, Plaintiff,

v.

THE SINGER MANUFACTURING COMPANY, Defendant.

MEMORANDUM IN AID OF THE COURT

Index to this Memorandum

I. Short Statements Setting Forth Invention or Priority Date, Filing and Issue Dates, and Fundamental Coverage of Each of the Following Patents:

Patent	Page of this Memorandum
Gegauf (1) 2,832,302	1
Harris Reissue 24,370	1–2
Johnson 2,862,468	2
Vigorelli 2,906,219	2
Gegauf (2) 2,877,726	2–3
Perla 2,810,360	3

II. Short Statement Setting Forth Priority Date, Filing Date, Date of Last Rejection of Application by United States Patent Office, Date of Abandonment of Application, and Fundamental Subject Matter of the Following Patent Application:

Application	Page of this Memorandum
Messerschmitt Application No. 548,481.	3–4

Dated: New York, New York, May 23, 1961.

Winthrop, Stimson, Putnam and Roberts, By Arthur E. Pettit, A Member of Said Firm, Office and Post Office Address, 40 Wall Street, New York 5, New York.

[fol. 5788] I. Short Statements Setting Forth Invention or Priority Date, Filing and Issue Dates, and Fundamental Coverage of Each of the Following Patents.

Plaintiff's Exh. No. 174

Gegauf (I) United States Patent 2,832,302, April 29, 1958.

This patent was filed in the United States on May 29, 1953 claiming a priority based upon a corresponding Swiss patent filed in Switzerland on May 31, 1952. (Paragraph 36 of Statement of Facts).

The Gegauf (I) patent covers, inter alia, a mechanism comprising a series of rotary cams having a common axis and a single retractable cam follower, shiftable relative to each other lengthwise of the common cam axis, in order to select a particular cam for controlling the lateral needle movement. (Claim 1).

Plaintiff's Exh. No. 172

Harris United States Reissue Patent 24,370, October 8, 1957.

This Harris reissue patent constitutes a reissue of Plaintiff's Exh. No. 170

Harris United States patent No. 2,693,778 dated November 9, 1954 and filed June 9, 1952. This reissue patent was filed on June 16, 1955. (Paragraphs 27 and 28 of Statement of Facts).

Claim 5 of Harris reissue patent covers a mechanism as defined in claim 1 of Gegauf (1) and which in addition includes, inter alia, a series of rotary cams and a single cam follower with the *cams being shiftable* lengthwise of their common axis so as to be individually presented to the cam follower.

Claim 6 of Harris reissue patent covers a mechanism as defined in claim 1 of Gegauf (1) and which in addition includes, inter alia, a constantly rotating eccentric connecting the single cam follower with the needle.

[fol. 5789] Claim 7 of Harris reissue patent covers a mechanism as defined in claim 1 of Gegauf (1) and which in addition, includes, inter alia, a horizontal reciprocat-

ing rod adapted to be mounted in a sewing machine frame and having a knob formed on its exposed end whereby such rod may be employed to withdraw the single cam follower from the series of rotary cams.

Plaintiff's Exh. No. 183

Johnson United States Patent No. 2,862,468, December 2, 1958.

The Johnson patent was filed on November 29, 1954 and covers an invention made by R. E. Johnson on April 29, 1953. (Paragraph 17 of Statement of Facts).

The Johnson patent covers, inter alia, a mechanism for forming zigzag stitch patterns by the combined action of a plurality of rotary cams and means to select different pluralities of such cams. (Claim 1).

Plaintiff's Exh. No. 185

Vigorelli United States Patent No. 2,906,219, September 29, 1959.

Plaintiff's Exh. No. 186

This Vigorelli patent was filed in the United States on November 23, 1953 claiming the priority date corresponding to Italian patent filed in Italy on January 28, 1953.

The Vigorelli patent covers, inter alia, a mechanism comprising a series of rotary cams mounted upon a common cam shaft, which is adapted to be removably supported within a sewing machine frame, a single retractable cam follower shiftable lengthwise of the common cam shaft in order to select a particular cam for controlling the lateral needle movement and with each cam being removable individually from such cam shaft. (Claim 1).

Plaintiff's Exh. No. 177

Gegauf (II) United States Patent No. 2,877,726, March 17, 1959.

Plaintiff's Exh. No. 178

This Gegauf (2) patent was filed on December 2, 1957 and constitutes a division of the above mentioned Gegauf (1) patent No. 2,832,302.

[fol. 5790] The Gegauf (2) patent covers, inter alia, a

mechanism comprising a series of rotary cams with each cam being provided with its own cam follower constrained to engage its associated cam only whereby any such cam may be individually selected for controlling the lateral needle movement. (Claims 8 and 18).

Plaintiff's Exh. No. 179

Perla United States Patent No. 2,810,360, October 22, 1957.

This patent covers an invention made by Perla on May 10, 1954. (Paragraph 19 of Statement of Facts).

The Perla patent covers, inter alia, a mechanism, comprising a series of rotary cams with each cam being provided with its own cam follower constrained to engage its associated cam only and with each follower having its own actuating handle whereby any such cam may be individually selected by its associated handle for controlling the lateral needle movements. (Claim 3).

II. Short Statement Setting Forth Priority date, Filing date, date of Last Rejection of Application by United States Patent Office, date of Abandonment of Application, and Fundamental Subject Matter of the Following Patent Application.

Plaintiff's Exh. No. 181

Messerschmitt United States Patent Application Serial No. 548,481.

Plaintiff's Exh. No. 181

This application was filed by Messerschmitt on November 22, 1955 claiming the priority dates of two corresponding German patents filed respectively on November 25, 1954 and July 13, 1955.

The Messerschmitt application disclosed and originally claimed, inter alia, a multiple cam needle controlling mechanism like that of the Perla patent supra.

Additionally, the Messerschmitt application originally disclosed and claimed a mechanism which included, inter alia, a second series of rotary cams and cam following [fol. 5791] means for controlling the amplitude and direction of a sewing machine work-feeding mechanism in accordance with the shape of a selected one of the cams.

Subsequent to an interference between this application and the Perla application, supra, and the acquisition of such Messerschmitt application by Singer, priority was conceded to Perla on the part of the application relating to the multiple cam needle controlling mechanism.

Singer thereupon prosecuted those claims relating to the multiple cam feed control mechanism.

After five and a half years of prosecution and four Patent Office rejections, of which the last was dated November 4, 1960, Singer, on May 4, 1961, abandoned the application.

[fol. 5792] IN UNITED STATES DISTRICT COURT

COURT'S EXHIBIT 8

UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF NEW YORK

Civil Action No. 154-108

UNITED STATES OF AMERICA, Plaintiff,

v.

THE SINGER MANUFACTURING COMPANY, Defendant.

MEMORANDUM IN AID OF THE COURT

Index to This Memorandum

Short Statements Setting Forth the Legal Status of Each of the Following Patents Vis-A-Vis one another:

Patent	Sections of This Memorandum
Gegauf (1) 2,832,302	1, 3
Harris Reissue 24,370	1
Johnson 2,862,468	1, 3
Vigorelli 2,906,219	1, 3
Gegauf (2) 2,877,726	2
Perla 2,810,360	2, 3

Dated: New York, New York, May 23, 1961.

Winthrop, Stimson, Putnam and Roberts, By Arthur E. Pettit, A Member of Said Firm, Office and Post Office Address, 40 Wall Street, New York 5, New York.

[fol. 5793] Short Statements Setting forth the Legal Status of each of the Following Patents Vis-a-Vis one Another

1. Gegauf (1) patent No. 2,832,302 claims the concept basic to each of the mechanisms *disclosed* and *claimed* in each of the following patents:

Harris Reissue No. 24,370
Johnson No. 2,862,468
Vigorelli No. 2,906,219

This concept includes, inter alia, the idea of a mechanism comprising a series of rotary cams having a common axis and a single retractable cam follower, shiftable relative to each other lengthwise of the common cam axis, in order to select a particular cam for controlling the lateral needle movement.

Thus, each of the mechanisms *disclosed* and *claimed* in each of the Harris Reissue, Johnson and Vigorelli patents, supra, infringes one or more claims of Gegauf (1) patent, including in each instance claim 1.

Examples of claims of the Harris Reissue, Johnson and Vigorelli patents which include, inter alia, the basic concept of Gegauf (1) are noted below:

Harris Reissue claims 5, 6 and 7
Johnson claim 7
Vigorelli claim 1

Harris Reissue claims 1 to 4, inclusive, came from the parent Harris patent No. 2,693,778 and do not relate to a multiple cam mechanism.

Each of the Harris Reissue claims 5, 6 and 7 includes, inter alia, all of the elements of claim 1 of Gegauf (1), [fol. 5794] supra. Therefore, any mechanism which infringes any one of the Harris Reissue claims 5, 6 or 7, must also infringe claim 1 of Gegauf (1).

2. Gegauf (2) patent No. 2,877,726 claims the concept basic to the mechanism *disclosed* and *claimed* in the Perla patent No. 2,810,360.

This concept includes, inter alia, the idea of a mechanism comprising a series of rotary cams with each cam being provided with its own cam follower constrained to engage

its associated cam only whereby any such cam may be individually selected for controlling the lateral needle movement.

Thus, the mechanism *disclosed* and *claimed* in the Perla patent infringes one or more claims of Gegauf (2) patent, including claim 18.

Claim 3 of Perla patent is an example of a claim which includes, inter alia, the basic concept of Gegauf (2).

3. Johnson patent No. 2,862,468 claims a concept ancillary to the basic concept of Gegauf (1), which ancillary concept is found in each of the mechanisms *disclosed* and *claimed* in Perla patent No. 2,810,360 and as *disclosed* in Vigorelli patent No. 2,906,219.

This ancillary concept includes, inter alia, the idea of a mechanism for forming zigzag stitch patterns by the combined action of a plurality of rotary cams and means to select different pluralities of such cams.

Thus, each of the mechanisms *disclosed* and *claimed* in the Perla patent and as *disclosed* in the Vigorelli patent infringes one or more claims of said Johnson patent, including in each instance claim 15.

Claim 1 of Perla patent is an example of a claim which [fols. 5795-5802] includes, inter alia, the above noted concept claimed in the Johnson patent.

[fols. 3427-3437] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 2 (S-1)

April 26, 1955.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Modified Vigorelli Model ZZ/A Zigzag Machine (Bed-Plate No. 510,972).

We have been asked to conduct the usual patent investigation relative to the subject machine in order to determine whether or not it infringes the claims of any unexpired Singer-owned patents.

The present machine is a modified version of the Vigorelli Model ZZ/A zigzag machine (a specimen of which carries bed-plate No. 501,701) which formed the subject of our prior report of October 28, 1953 (53 P.S. 474) to Mr. W. A. Davidson, which report was entitled "Vigorelli Model ZZ/A Sewing Machine Manufactured in Italy." The early Model ZZ/A zigzag machine is particularly characterized by the fact that it includes a rotary pattern cam mechanism adapted to impart selective lateral zigzag movements to the needle, which mechanism includes a removable unitary nest of stacked rotary pattern cams of which only a single cam can be selected by the operator for the purpose of effecting a predetermined pattern of ornamental zigzag stitches.

The later Model ZZ/A machine differs from its prede- [fol. 3438] cessor in that it is provided with a cam follower element which is adapted not only to engage any single selected cam but it is provided with a modified shifting means for positioning the follower to cooperate with any pair of adjacently disposed cams so as to effect the superimposition of the profiles of the two cams and thereby increase the number of available stitch patterns that the machine can produce.

The mechanism of the later Model ZZ/A machine is

illustrated and claimed in three unexpired Vigorelli-owned Italian patents noted hereinbelow:

No. 464,088, Apr. 29, 1950,
No. 497, 557, Sep. 15, 1954,
No. 507,862, Jan. 3, 1955.

As set forth in our above noted prior report, the manually controllable means for varying the needle amplitude and needle bight of the early Model ZZ/A machine infringes the French patent and the British patent listed hereinbelow, which patents are unexpired and owned by this Company:

British No. 416,619, Nov. 21, 1933,
French No. 784,641, Jan. 24, 1935.

Since the later Model ZZ/A machine utilizes the same needle amplitude and bight control means as the early Model ZZ/A machine, it also would infringe our above noted two patents.

These two patents correspond to the Company's expired [fol. 3439] U.S. patents of Tiesler No. 2,014,916 and Eames No. 2,005,673.

No other unexpired Singer-owned patents are infringed by the later model Vigorelli machine. However, this Company's U.S. patent application of Johnson, Serial No. 471,766, filed November 29, 1954, covering the Experimental 282 machine contains claims which, if allowed, might be infringed in the United States by the later model Vigorelli ZZ/A machine. At the present moment we cannot predict whether the broad claims of this U.S. application will be finally allowed for there is much patent activity in the field of zigzag stitch ornamental machines. We do know that the subject matter of the Experimental 282 machine was developed prior to the filing date (September 29, 1953) of Italian patent No. 507,862, which patent discloses and claims the pattern cam subject matter which is common to the later model Vigorelli ZZ/A machine and the Experimental 282 machine. On this basis, it would appear that, in the United States at least, our patent application covering the Experimental 282 machine would, as opposed to any

United States Vigorelli patent application, have the right to contain the broad and dominating claims.

Yours very truly, The Singer Manufacturing Company, Patent Department.

In triplicate.

CC: Mr. A. W. Reiner, Mr. J. G. Stanford, Europe.

[fol. 3440] In United States District Court

Government's Exhibit 3

Memorandum—CAW-Z—June 16, 1955

The Purchase by Singer of the U.S. Carl Harris Patent No. 2,693,778 and the Foreign Patents and Patent Applications Corresponding to such Patent.

In an attempt to destroy or to limit the scope of the Italian Vigorelli patents Nos. 497,557 and 507,862, filed respectively in Italy on Jan. 28, 1953 and Sep. 29, 1953, we conducted a patent investigation which developed U.S. Harris patent No. 2,693,778 disclosing a Class 107W type sewing machine modified by the addition thereto of a plurality of rotary cams and means for selectively connecting the needle-bar with any one of these cams so as to produce a predetermined pattern of zigzag stitching. The claims of the Harris patent, however, do not relate specifically to the multi-cam mechanism but rather to the specific form of an eccentric adjusting mechanism which is incorporated in the Harris machine. These claims do not dominate our Class 282 or Experimental 1040 machines nor any of the existing family-type automatic zigzag machines made and sold by our competitors. However, it would appear that the Harris patent disclosure could support claims which broadly call for a multi-cam mechanism and cam selector means in a manner such as to read upon many of the existing types of automatic multi-cam zigzag machines including our Class 282 and Experimental 1040 machines as well as the Vigorelli and Brother machines.

[fol. 3441] Since the U.S. Harris patent has been issued for less than two years, it might be possible to reissue such

patent and acquire broadened claims that would cover the multi-cam mechanism. If it is not ultimately possible to obtain such broadened claims the filing of a reissue patent application might precipitate a patent interference proceeding between the Harris reissue application and any other pending U.S. patent application containing claims of like scope. Since the Harris patent application was filed in the United States Patent Office on June 9, 1952, a date prior to, for example, the earliest filing date of any of the known Vigorelli zigzag patent applications, it would appear that the Harris patent application would be awarded the claims involved in the interference on the grounds of its prior filing date. Further, even if such an interference were not declared between Harris and any of the U.S. pending patent applications containing similar multi-cam mechanisms for the reason that the Patent Office does not consider claims of such scope to be patentable, the prosecution of such claims before the Patent Office and the final rejection thereof would be a good indication that no one else would be awarded claims of such scope by the United States Patent Office.

[fols. 3442-3445] Thus, it appeared highly desirable for Singer to acquire all rights in the United States Harris patent particularly in view of the patent situation surrounding the Class 282 and Experimental 1040 machines.

• • • • • • •

[fol. 3446] It further developed that Harris had two inventions of which the first is illustrated in the subject U. S. patent as well as in the following corresponding foreign patents and patent applications:

French Patent No. 1,083,582, (Patent Application Serial No. 649,367, filed June 5, 1953

Belgian Patent No. 520,285, (Patent Application Serial No. 407,473, filed May 28, 1953)

Italian Patent No. 509,535, (Patent Application Serial No. 69/86, filed June 5, 1953)

British Patent No. 730,436, (Patent Application Serial No. 14367, filed 1953)

German Patent Appl. No. 16,599, filed June 3, 1953

Canadian Patent Appl. No. 632,086, filed June 6, 1952

Swedish Patent Appl. No. 5,211, filed June 5, 1953
Japanese Patent Appl. No. 10,103, filed June 5, 1953

[fol. 3447] The second Harris invention does not relate to the multi-cam operated mechanism of the first invention but rather to a Class 107W type sewing machine fitted with two rotary cams which may be alternatively connected with the needle-bar for the purpose of producing a selected stitch pattern. This second invention is covered by U.S. patent application of Harris, Serial No. 328,059, filed December 26, 1952, and Canadian patent application of Harris, Serial No. 640,695, filed December 23, 1952. This second invention was combined with the first invention in each of the above noted French, Belgian, German, Italian, Swedish, Japanese and British patent applications. It was apparent that the second invention was of little interest to Singer.

It soon appeared from our discussion that Harris would be agreeable to sell his patents and he stated that he would like to receive $25,000 for his entire group of patents, both U.S. and foreign. He was advised that this figure was too high particularly in view of the fact that his patents did not claim subject matter in which we were interested and that in order to make these patents of value to us we would have to reissue them. In order to effect a deal with Harris I then offered to purchase his U.S. and Canadian patent rights to his first invention as well as all of his combined European and Japanese foreign patent rights leaving to him the U.S. and Canadian rights in his sec-
[fols. 3448-3450] ond invention. Harris was willing to go along with this suggestion but asked a price of $15,000 for this patent package. At this point I closed the meeting and suggested that since this figure was too high for my client we would forget the entire deal but that if Mr. Harris should decide to accept the reasonable figure of $8,000 he could call me at 9 o'clock the next morning.

Promptly at 9 A.M. Friday morning, Mr. Harris called me at the hotel and advised that he was willing to accept the offer whereupon I suggested that he meet me at Andre Forget's office at 11 A.M. I called Mr. Gowling in Ottawa by telephone and asked him to arrange to have available funds in the amount of $8,000 (Canadian dollars). There-

after I went immediately to Andre Forget's office at 360 St. James Street, West, Montreal, where I acquired the services of a stenographer and prepared fresh assignment papers which would cover the arrangements as tentatively made with Harris. Harris arrived upon the scene and being confronted with the new assignment papers demurred and stated that he had changed his mind about selling to us any foreign rights other than the Canadian. However, after much discussion, Harris executed the assignment papers as well as the application for reissue of the Harris U.S. patent and at the same time turned over to me his original U.S. patent together with the above noted Belgian and Italian patents.

* * * * * * *

[fol. 3451] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 4

Received Patent Department, September 13, 1955,
Answered—.

September 12, 1955.

Mr. W. P. Evans,
18 Via Dante,
Milan, Italy.

Dear Mr. Evans,

I would like to refer further to your letter of August 30th on the Vigorelli matter. There are certain new developments which cause us to feel that the time has probably arrived when we should take some action.

In my letter of August 16th I commented that it was probable that we might become involved in litigation with Vigorelli in Italy or elsewhere. For that reason it seemed to be desirable to try to talk matters over with them to find some basis of agreement that would be mutually advantageous, rather than to litigate. At that time we did not know that involvements in litigation would come as soon as it has come. Late in August we received word from our people in Brazil that application had been made

by Vigorelli for a Brazilian patent based on very broad claims. Under Brazilian procedure it was absolutely essential that we file opposition to this application within the time limit of the 2nd of September. We accordingly sent instructions by cablegram and in order that you may more fully understand the situation, I enclose a copy of the subsequent letter in which the Patent Department gave Mr. Mayer in Brazil information concerning prior invention which would enable our attorneys in Brazil to prosecute our opposition to the patent application. I am aware that Brazilian procedure in this respect is quite different from Italian procedure but I believe that you are conversant with the procedure under which the merits of a [fol. 3452] patent application are fought out in the Patent Office prior to the issuance of a patent.

Vigorelli's representative in Brazil will doubtless be informed by the Brazilian Patent Office in due course that Singer has entered this opposition and at a somewhat later date they will also learn from the Patent Office the grounds on which our opposition is based.

Unless we are able to come to some agreement with Vigorelli, we will of course institute proceedings in Italy in due time, seeking to invalidate such patent as Vigorelli has received and we will do the same thing in France and other countries in accordance with the proper procedure in each country. This litigation will undoubtedly result either in the cancelling of their patent and patent applications, or at any rate, severely limit the claims. On the other hand, if we were to refrain from instituting such proceedings and if we were to withdraw the Brazilian opposition, their applications might develop into rather broad patents which would have a dominating position in the industry. We ourselves hold some patents and have patent applications pending which would make trouble for Vigorelli if we were engaged in litigation with them, or which would greatly strengthen and broaden the patent situation if our position and theirs could be pooled by some mutual agreement.

All of this leads us to believe that we should not defer any longer our proposed discussions with Vigorelli concerning the whole situation. In the light of the foregoing I am writing to offer the following suggestion. I suggest

that you arrange to have an interview with whomever you would regard as the most influential person in Vigorelli. At that interview you could tell them that you had been advised by your New York associates that we had con-[fol. 3453] templated discussing patent matters with Vigorelli when one or more of us familiar with the situation might be in Europe this fall; that the reason for our intention to confer with Vigorelli was that we felt that their patent claims and ours might very well develop certain conflicts but that instead of waiting for these conflicts to arise, we were disposed to discuss the situation with them to see whether something of mutual advantage might not be worked out which would strengthen the position of both organizations, rather than have each of us seeking to knock out the patent claims advanced by the other. You would then go on to say that you had received word from New York that the Brazilian application of Vigorelli had necessitated the filing of an opposition by Singer in that country, the effect of which would be to knock out or seriously limit any Brazilian patent, and that we had asked you to tell Vigorelli that they should not look upon the filing of this opposition in Brazil as indicating any desire on our part to litigate these things in a mutually destructive manner but that if Vigorelli would be interested in exploring the possibility of some mutually beneficial arrangement, we would arrange to have one of our people from New York confer with them this fall. (It is pretty well known that it is customary for more than one Singer person from New York to be in Europe between now and the end of the year and there is no need to give the impression that someone would be sent to Italy solely for the purpose of holding such a conference."

Frankly, I would like to have your views with respect to such an approach. I cannot help but feel that it would be desirable to arrange a meeting with Vigorelli and have them know that we are approaching them in a friendly spirit, to see whether some mutually advantageous arrangement cannot be worked out. It seems to me that the fact that we have been forced to file this opposition proceeding [fol. 3454] in Brazil gives us the very best reason for approaching them now in a friendly manner, rather than sitting back and hoping that the Brazilian situation will

bring some overtures from them. In any conversation with Vigorelli such as I have outlined, you of course would not discuss any details of the patent situation or even indicate that you have any knowledge as to the grounds that we are relying upon in filing an opposition proceeding in Brazil. You might also tell them that we were also opposing a multi-cam patent application filed by another party in Brazil and that patent applications were also beginning to show up from other parties in several countries. They may well be aware of this but it emphasizes the desirability of compromise instead of litigation. All that we want to know now is whether they would be interested in talking to our representative and exploring the whole situation with a view to possibly finding something of mutual benefit. If you are in agreement and believe that an approach such as outlined might well be successful, we will probably cable saying to go ahead, and in that case we would want to try to set up a meeting for some time the latter part of October or in the first week in November. If we are going to have this conference, it is probably better to have it sooner rather than later, as the whole situation is moving rather rapidly.

Yours very truly, M. C. Lightner

Enclosure.

Copy to Mr. Waterman, Mr. Stanford.

[fol. 3455] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 5

September 9, 1955.

M. C. Lightner, Esq., President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Lightner:

I am returning herewith the draft of your letter to Mr. Evans. After going over it very carefully, I feel that it fully covers the situation and that no changes should be made.

Yesterday in discussing this matter with you I believe that I failed to mention that we were opposing a patent application directed to the multi-cam arrangement filed by Brutsch & Co. in Brazil and also that Husqvarna had comparable patent applications pending in certain foreign countries. With this in mind you may feel that it is desirable to add a further paragraph to your letter to the effect that it might be well for Mr. Evans to tell Vigorelli that we have definite knowledge that at least two other well-known sewing machine companies are attempting to acquire in many foreign countries patent claims which would adversely affect Vigorelli as well as ourselves and that perhaps Vigorelli and Singer, standing together rather than apart, could more effectively prevent these other firms from acquiring claims which might be detrimental to both Singer and Vigorelli.

[fols. 3456-3458] The above thought is to acquaint Vigorelli fully with the fact that they may not be first in the field and that perhaps Singer might be in a position to render them valuable assistance.

Yours very truly,——

Enclosure—Draft

CC: Mr. M. L. Waterman.

[fol. 3459] In United States District Court

Government's Exhibit 8

Received Patent Department, October 14, 1955, Answered—

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1.500.000.000

Milan 10th October, 1955.

M. L. Waterman Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman,

As advised in our letter of Sept. 24th, Dr. Lando attended the Bologna Fair on Oct. 6th and had no difficulty in finding a suitable opportunity for broaching with Mr. Vigorelli the question of the patent situation in Brazil.

Mr. Vigorelli was completely unaware of the opposition made to his patent. He stated, and has since confirmed, that he no longer has any connection with the Vigorelli Brazilian concern other than receiving a royalty on the machines produced there. He has also mentioned that it is a year since he has received any correspondence from Brazil.

Dr. Lando limited himself on that occasion to saying that as a result of an application for registration of a Vigorelli patent in rather wide terms the Singer Company had been compelled to make opposition. Vigorelli commented that he did not understand the reason for such opposition in Brazil and not, for instance, in U.S. and in Germany where his patents had already been deposited. He readily accepted the suggestion of a further discussion and came to see us in Via Dante the following day (Oct. 7th).

Since it appeared from the outset that Mr. Vigorelli did not have a precise idea as to which of his patents was still pending in Brazil and—purposely or otherwise—was rather vague about the whole business, we did not enter into too

many details. There is no doubt that Vigorelli has a shrewd idea as to the purpose of our action especially as he went on to mention negotiations which have been proceeding for a long time between himself and the Bernina Company. It appears that the Bernina Company deposited a patent for a device involving a plurality of cams in a small number of countries some considerable time before the Bernina machine appeared on the market. Vigorelli's patent is post-dated to that of Bernina but his machine appeared before Bernina's and his patent covers a considerably larger num-[fol. 3460] ber of countries. Vigorelli stated that he has always been on excellent terms with the Bernina Company and that these negotiations are being carried on in a very amicable spirit.

Mr. Vigorelli expressed his satisfaction that the Singer Company of New York had thought of consulting with him in a friendly way over this conflict of patent interests and expressed himself as only too happy to meet one of your representatives at any time convenient to yourselves.

You know, of course, that Vigorelli was a former employee of the Necchi Company where he rose to the position of Sales Manager (in the early thirties) before breaking away and starting on his own. His heart has not been too good in recent months and he usually takes a long week-end rest at the sea-side.

Mr. Vigorelli's patent agent is Franco Cicogna & Co., 16 Via Visconti di Modrone, Milan.

We beg to confirm our cable of the 7th and have promised to inform Vigorelli as soon as we hear when a representative from New York will be coming this way.

> "Following friendly encounter here Vigorelli very agreeable meet your representative any date before middle November to explore situation stop Vigorelli was unaware your action Brazil stop Friendly negotiations currently proceeding between Vigorelli and Bernina regarding latter's prior patent covering plurality cams."

Yours very truly, W. P. Evans, Compagnia Singer, per Macchine da Cucire.

cc: Mr. M. C. Lightner 10/13

Mr. J. G. Stanford 10/13

[fol. 3461] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 9

Received Patent Department, October 17, 1955, Answered—October 14, 1955.

W. P. Evans, Esq.
Milan, Italy

Dear Mr. Evans:

Your cable of the 7th and your letter of the 10th have been received, and I was pleased to learn that Mr. Vigorelli is agreeable to a friendly conference concerning possible conflict of patent interest.

It has been arranged that Mr. Stanford will arrive in Milan via K.L.M. on Monday afternoon, October 31. He would like to spend some time going over the general patent situation in Italy preparatory to discussions with Vigorelli and I would suggest Friday, November 4 be set as the date for the first conference with Vigorelli.

On Thursday morning November 3rd I will arrive in Milan via T. W. A. You will be informed of the exact time of my arrival as well as that of Mr. Stanford at a later date.

We are quite interested in the fact that Vigorelli has been negotiating with Bernina concerning patents on multiple cam machines. We know that Brutsch has filed patent applications in a number of foreign countries for a multiple cam machine and that the Brutsch applications were filed prior to the Vigorelli patent applications. Although our Patent Department feels that its records are complete on this subject and that it has knowledge of all patents that have been issued and of all the machines of this kind that have appeared in recent years, it has not been able to locate a patent or a patent application in the name of Bernina or Gegauf for a multiple cam machine. This latter fact, however, you should consider as confidential.

It would be extremely helpful if we could have exact information concerning the patent protection which forms the basis of the discussions now going on between Bernina and Vigorelli before our departure from the States and thus permit a study of it. If it is possible for you to do so

when you approach Vigorelli to set the date for our conference and the opportunity presents itself unobtrusively and without any degree of emphasis we would suggest that you [fol. 3462] try to learn the country and the patent or patent application number which forms the basis of the discussions now going on between Vigorelli and Bernina.

Yours very truly, M. L. Waterman, Vice President.

cc: Mr. M. C. Lightner, Mr. J. G. Stanford.

[fol. 3463] In United States District Court

Government's Exhibit 10

Translation

Dr. E. Wiegand, München.
Dipl. Ing. W. Niemann, Hamburg
Patent Agents

Hamburg 1, November 14th, 1955.
Ballindamm 26

To
Singer Nähmaschinen
Aktiengesellschaft
Frankfurt-Main 1
Gutleutstr. 42-44
By Express
W. 15964/55 DrEW/H.

Re: Zigzag Sewing Machines with a Multiple Number of Cams

Referring to the conference with Mr. Stanford and Mr. Krüger on the 7th inst. I beg to report that I have discussed the matter in detail with the competent examiner for Class 52a. In doing so it was found that the examiner did not know any better material than that known to us.

The examiner was extremely pleased to get knowledge of the American Patent No. 88 282. He also took a note of the British Patent 19 184 1908 and the copy of the German Patent 219 187 which I submitted. The latter two

patent copies were already known to the examiner somehow.

As you know there is no possibility to obtain information at the Patent Office on pending patent applications. One has to wait and watch whether corresponding patent applications will be published.

According to my personal conception the situation is the following:

The Gebrauchmuster 1 707 338 was registered by Gegauf Bernina on account of a corresponding auxiliary (eventual) Gebrauchsmuster application. The corresponding patent application has not been published yet, it may be assumed that it is just about to be published. After the examiner has now got knowledge of the American Patent 88 282 and has shown great interest in it, he will presumably oppose same to the patent application of Gegauf and possibly express the idea that there is no longer any patentable remainder.

[fol. 3464] The conference at Frankfurt on Main has already shown that the situation in the section in question here is very complicated on account of numerous applications. I believe that the situation is more complicated yet than the present result of the searches of Mr. Stanford shows. Possibly there are existing in the section in question here also applications of German firms which should be considered. I can imagine for instance that Phoenix and Messerschmitt likewise have applications pending which might be of interest to you. It appears advisable therefore that the corresponding publications of Phoenix and Messerschmitt are also watched abroad.

Finally it appears to me proper also to keep on watching the publications in Italy, because it does not appear to me to be out of question that there has also another Italian applicant been active in this section and has filed a corresponding patent application in Italy with the priority of which possibly a patent application has been filed in Germany too.

The above are only assumptions of mine arrived at on account of a general consideration of the matter, but they might possibly also give a hint how to supplement your searches.

The copy of the details of the Gebrauchsmuster 1 707 338 I am returning herewith.

Yours very truly, sgd. Dr. Ernst Wiegand.

Enclosure.

cc: Messrs. Cruikshank & Fairweather.

[fol. 3465] Tuesday.

Chet—

Been trying to write for 3 days—now sitting in C&F office while they look for file.

Vig. claims or states that Bernina has filed an application in the U.S. corresponding to their early filed Italian patent. If this be so, maybe Harris Reissue should not be pushed too fast! Something to think about.

Fairweather tells me our British opposition against Vig. would have failed. I'm glad we have agreement.

Regards, J. B.

Will catch Queen Mary of Friday—I hope. (Written on knee no other place to write.)

[fol. 3466] In United States District Court

Government's Exhibit 11 (S-2)

Documents

Agreement (Patent) between The Singer Manufacturing Company of New Jersey and Arnaldo Vigorelli, of Italy.

Dated: February 17, 1955.

Accordo in data 17 Novembre 1955 fra "The Singer Manufacturing Company" (qui in appresso chiamata "Singer"), una Società legalmente costituita secondo le leggi dello Stato di New Jersey, e "Arnaldo Vigorelli

Agreement dated as of November 17, 1955, between The Singer Manufacturing Company (hereinafter called "Singer"), a Corporation organized and existing under the laws of the State of New Jersey, and "Arnaldo Vigo-

S.p.A." (qui in appresso chiamata "Vigorelli"), una Società legalmente costituita secondo le leggi italiane, per sè e per i rispettivi cessionari.

1) Singer non intraprenderà alcuna azione il contraffazione contro Vigorelli in base a qualsiasi diritto derivante da brevetti già concessi o che verranno concessi in ogni paese, azione nei riguardi di elementi descritti e illustrati nei brevetti italiani n.497.557 e n.507.862 e quando incorporati in macchine da cucire [fol. 3467] fabbricate o vendute da Vigorelli.

Vigorelli non intraprenderà alcuna azione di contraffazione contro Singer in base a qualsiasi diritto derivante da brevetti già concessi o che verranno concessi in ogni paese, azione nei riguardi di elementi descritti e illustrati nei brevetti americani n.2.693.778 e nelle richieste per brevetto americane da parte di *Johnson* per il n.Serial 471.766 e da parte di *Perla* per il n.Serial 386684 e quando incorporati in macchine da cucire fabbricate e vendute da Singer, copie dei quali brevetti e richieste per brevetto sono a disposizione per ispezione da parte di Vigorelli presso gli Uffici dei Sigg.Barzanò e Zanardo in Milano.

relli S.p.A." (hereinafter called "Vigorelli"), a Corporation organized and existing under the laws of Italy, for them and their respective assignees.

Singer will not bring any infringement action against Vigorelli under the rights derived from patents now issued or to be issued in any country with respect to subject matter disclosed in Italian Patents No.497.557 and No.507.862 and when embodied in sewing machines manufactured and sold by Vigorelli.

Vigorelli will not bring any infringment action against Singer under the rights derived from patents now issued or to be issued in any country with respect to subject matter disclosed in U.S. patents No.2.693.778 and in the U.S. patent applications by *Johnson*, Serial No.471.766, and by *Perla*, Serial No. 386.684, and when embodied in sewing machines manufactured and sold by Singer, copies of which are at disposal for inspection by Vigorelli at the Office of Messrs. Bergano and Zenardo in Milan.

2) Entrambe le parti si accordano a non intraprendere alcuna azione di opposizione, [fol. 3468] nullità e invalidazione in contrasto ai sopracitati brevetti, o comunque agire contro gli stessi in ogninpaese, ed ad immediatamente sospendere tali azioni se già iniziate, e inoltre che, se tali brevetti o domande di brevetto delle due parti siano o diverranno inplicate in questioni d'ufficio di determinazione di priorità, quali casi di interferenza negli U.S.A. o in Canadà, ontrambe le parti agiranno insieme allo scopo di sistemare tali casi secondo le leggi e regolazioni degli uffici brevetti interessati e nello spirito del presente accordo.

Each of the two parties mutually agree not to institute any opposition, nullity or invalidation proceedings in any country against or otherwise to attack each others above noted patents or patent applications and immediately to withdraw any such proceedings if it has already been instituted provided, however, that if such two parties patents and patent applications are or have become involved in a patent office priority—determining proceedings such as a United States interference or a Canadian conflict proceeding, then both parties will work together in order to settle such a proceeding in accordance with the laws and regulations of the patent office concerned and in the spirit of this agreement.

3) Singer, como indicato in questo accordo, s'intende co- [fol. 3469] me The Singer Manufacturing Company, Singer Sewing Machine Company, le loro Società sussidiarie, affiliate ed associate, ed i loro clienti, in tutto il mondo.

Singer, as designated in this agreement, shall be understood as including The Singer Manufacturing Company, Singer Sewing Machine Company, their subsidiaries, affiliated, associated companies and customers throughout the world.

Vigorelli, come indicato in questo accordo, s'intenie come Arnaldo Vigorelli, S.p.A., le sue Società sussidiarie, affiliate ed associate tutto il mondo.

Vigorelli, as designated in this agreement, shall be understood as including Arnaldo Vigorelli, S.p.A., its subsidiaries, affiliated, associated companies and customers throughout the world.

In Fede Di Che le parti hanno reso esecutivo il presente accordo nel giorno e nello anno indicato sopra.	In Witness Whereof, the parties have executed this agreement as of the day and year written above.

Witness: ——.

Testimonio: ——.

The Singer Manufacturing Company, Max L. Waterman, Vice-President, Arnaldo Vigorelli, S.p.A.

[fol. 3470] In United States District Court

Government's Exhibit 12

Memorandum—CAW-M—April 14, 1958

Singer-Vigorelli United States Patent Interference

The basic United States patent application relating to the Johnson 401 machine is United States patent application Serial No. 471,766 filed November 29, 1954. The Johnson invention covered by this application was first conceived in this country in April 1953.

The Patent Office has unofficially advised us that this application is now in condition for allowance but its formal allowance is being held in abeyance pending the possible institution of an interference between one or more adversely-owned patent applications.

We assume that one of the possible interfering applications is owned by Vigorelli and, more particularly, corresponds to the Vigorelli Italian patent No. 507,862 filed in Italy on September 29, 1953.

Vigorelli Italian patent No. 507,862 constitutes a patent of addition relative to Italian Vigorelli patent No. 497,557 filed in Italy on January 28, 1953. We presume that Vigorelli filed in the United States one application having a dual priority with respect to these two Italian patents.

It is to be noted that Italian patent No. 497,557 discloses and claims the original Vigorelli multi-cam machine in

which the cam follower was capable of tracking only one cam at a time. The second Italian Vigorelli patent No. 507,862 discloses and claims the modified form of the Vigorelli machine in which the cam follower is capable of tracking to adjacently disposed cams during a predetermined stitching cycle. There is no doubt in our minds but that this latter structure is covered by claims now allowed in our above noted Johnson application. Attached to this memorandum are Johnson claims 98, 104 and 100 which we believe clearly cover the subject matter of the second Vigorelli Italian patent.

It is to be recalled that the Singer Vigorelli patent agreement of 1955 specifically relates to the Johnson United States application Serial No. 471,766 as well as to the Italian Vigorelli patents Nos. 497,557 and 507,862 discussed hereinabove.

This agreement contains the following clause:

> [fols. 3471-3473] "that if such two parties' patents and patent applications are or have become involved in a patent office priority-determining proceedings such as a United States interference or a Canadian conflict proceeding, then both parties will work together in order to settle such a proceeding in accordance with the laws and regulations of the patent office concerned and in the spirit of this agreement".

In view of the above we trust that if an interference is set up between Vigorelli and Singer that such an interference can be quickly settled between the two parties outside the United States Patent Office.

Although the Vigorelli patent No. 497,557 enjoys a priority date of January 28, 1953, earlier than the conception date of April 1953 of the Johnson 401 machine, it is pertinent to note that the Johnson conception date is earlier than the priority date of September 29, 1953 of the second Italian patent No. 507,862. In view of the situation it would appear that Johnson would win any United States interference involving subject matter common to his application Serial No. 471,766 and a United States corresponding to the second Italian patent No. 507,862.

It is our understanding that Dr. Lando has in his possession a copy of the United States Johson application Serial No. 471,766 as originally filed.

Enclosure—
Copy of claims.

[fol. 3474] In United States District Court

Government's Exhibit 13

December 28, 1955.

Leo Adamson, Esq.
Singer Nahmaschinen Akt.-Ges.,
Gutleutstrasse, 42,
16 Frankfurt a/Main 1,
Germany.

Dear Mr. Adamson:

Multiple-Cam Ornamental Stitch Sewing Machine

We thank you for your letters of November 15 and 17, as well as the copy of Dr. Wiegand's letter to you of November 14.

As you know, on November 17, 1955 Singer and Vigorelli executed an agreement relating to multiple-cam ornamental stitch sewing machines. Briefly stated, under the terms of this agreement Singer agreed not to bring any infringement action against Vigorelli in any country of the world with respect to Vigorelli-made zigzag stitch sewing machines of the type particularly disclosed in the Vigorelli Italian patents Nos. 497,557 and 507,862. For its part, Vigorelli agreed not to bring any infringement actions in any country of the world against Singer with respect to the Singer Class 282 and Class 319 machines as disclosed in the several Singer-owned patents and patent applications relating to these machines.

Although we know that Singer competitors other than Vigorelli may have certain patent applications which may [fol. 3475] possibly in the future interfere with the sale

of the Singer Class 282 and Class 319 machines, we believe that this Singer-Vigorelli agreement will go a long way toward assisting us in clearing our way through future patent obstacles. We appreciate, of course, that it may be necessary for us to attempt to make similar agreements with other Singer competitors.

We agree with Dr. Wiegand that various foreign patent offices including the German Patent Office undoubtedly have on file many patent applications relating to multiple-cam ornamental stitch sewing machines and that there is a possibility that one or more of these applications may mature into patents relating to subject matter similar to our Class 282 and Class 319 machines. However, as above indicated, we will face this possible situation and deal with it accordingly when it occurs. In the meantime, we will continue to watch very carefully the patents and patent applications as they are published in the various countries of the world. In this connection, your presumption is correct that it will not be necessary for Dr. Wiegand, at the present time, to prepare any further reports on this matter.

We shall, of course, keep you informed as to any further developments concerning this subject.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman, Messrs. Cruikshank & Fairweather.

[fol. 3476] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 14

December 23, 1955.

Dr. S. Lando,
Compagnia Singer per Macchine
da Cucire,
Palazzo Singer,
Via Dante 18,
Milan, Italy.

Dear Mr. Lando:

Singer—Vigorelli Agreement

Thank you for your letter of December 13 with enclosures. We are attaching the copy of Mr. Vigorelli's letter to our copy of the agreement.

Enclosed is a copy of a communication (in Portuguese) sent to the Brazilian Patent Office by our Brazilian attorneys. This communication withdraws our opposition to the Vigorelli Brazilian patent application Serial No. 71,416, and was filed at our request and in accordance with our agreement with Vigorelli.

You may wish to send a copy of this paper to Mr. Vigorelli's attorney to advise him that the opposition has been withdrawn. In discussing this matter when we were in Italy we understood that the Vigorelli organization, which is now operating in Brazil, has no connection with the Vigorelli of Italy and that the Brazilian company is not licensed under the Brazilian patent application Serial No. 71,416. If you should have an opportunity when you may be in conversation with either Mr. Vigorelli or his attorney, [fol. 3477] we would be pleased if you would by cautious remarks determine just what the relations between these two companies are, and whether or not our understanding that the Brazilian company is not licensed under the above noted patent is correct.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—
Copy of Mr. Vigorelli's letter
Copy of communication.

[fol. 3478] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 15

Received Patent Department, December 22, 1955,
Answered—

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1.800.000.000

Direzione Generale

Milano 10th December, 1955.

M. L. Waterman Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman,

Dr. Lando paid a visit to Pavia last week, at Mr. Vigorelli's invitation, in order to collect some of the pictures taken during your visit. A selection, presented by Mr. Vigorelli, is being sent to you under separate cover.

During a friendly conversation with Mr. Vigorelli the following subjects were mentioned:

—Vigorelli has reached an agreement with Bernina on similar lines to the one made with us which commits both companies not to raise opposition to the patents concerning multi-cam zig-zag machines. In accordance with our agreement, Mr. Vigorelli made no mention to the Bernina people of his arrangement with the Singer Company.

—Dr. Lando was asked whether the speed regulator (?) used by Necchi on the Supernova machine was not in conflict with Singer patent No. 458.583 since he might also be interested to adopt the same mechanism on his machine. Dr. Lando replied that the matter would be submitted to our technical people.

—It appears that Ing. Martinoli has been removed from his position as General Manager of the Necchi Company—apparently because of his left wing tendencies—and has been appointed as head of a new Company "S.I.R.I."

created by Necchi for the purpose of "spreading the Necchi name throughout the world." Ing. Martinoli has left for India to start his new activity there.

Stanford investigating. Apparently not relevant. W Stanford advised.

Yours very truly, Compagnia Singer, per Macchine da Cucire.

[fol. 3479] In United States District Court

Government's Exhibit 16

January 19, 1956.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Singer Class 319 and Class 282 Multiple-Cam Ornamental Stitch Sewing Machines.

You will recall that during our recent trip abroad we discussed the "Bernina Favorit Model 540" machine. At that time we had knowledge of the facts that Bernina had filed on May 31, 1952 a Swiss patent application, on May 3, 1953 a German utility model application, and on May 31, 1953 an Italian patent application all directed to the above noted type of multiplecam ornamental stitch mechanism. Rumor had it that Bernina also filed corresponding German and United States patent applications covering this same mechanism. At that time only the German utility model (No. 1,707,338) and the Italian patent (No. 501,172) had been issued. In view of the discussions in Italy and Germany, it was decided that Bernina's German utility model and Italian patent did not validly block Singer from manufacturing and selling the Class 319 machines in Germany and Italy. However, the Swiss Bernina patent application and possibly the corresponding German patent application may mature into patents containing claims which would

[fol. 3480] be infringed respectively in Switzerland and Germany by our Class 319 and Class 282 machines.

Several weeks ago the U. S. Patent Office unofficially advised us that the claims of our U.S. Harris reissue patent application are allowable over the known issued patents. These claims, if allowed, would read on both the Singer and Bernina machines. It follows that such claims if contained in a Bernina U. S. patent application would also be allowable over the known issued patents.

We have been continually investigating the records of the U. S. Patent Office to locate any evidence that would indicate that Bernina has filed a patent application corresponding to its original Swiss application of May 31, 1952, and until last week had found nothing to indicate that such an application had been filed. We now find that a Bernina patent assignment was recently recorded in the U. S. Patent Office and, as this assignment referred to an application executed on May 20, 1953, it could relate to a patent application corresponding to the above noted Bernina Swiss patent application. Unfortunately for us, the parent Swiss Bernina application was filed in Switzerland some nine days prior to the effective filing date in the United States of our Harris reissue application No. 516,058. From this, it is reasonable to presume that if this [fol. 3481] U. S. Bernina application in fact corresponds to the parent Swiss case, the U. S. Patent Office will declare an interference between this application and our recently filed U.S. Harris reissue application No. 516,058 for the purpose of determining which of the two parties is entitled to the broad claim. Since any such U. S. Bernina application would be entitled to its corresponding Swiss priority date of May 31, 1952, which is nine days prior to the effective U. S. filing date of June 9, 1952 of the Harris reissue patent application, it would appear that Bernina might be entitled to the broad claims.

However, a U. S. patent interference proceeding is a long and complicated affair during which each party has an opportunity to attempt to block the ultimate allowance of the interfering claims to the opponent party. The outcome of such an interference cannot be predicted with certainty. In other words, assuming that Bernina has filed such an application in the United States, then our Harris

reissue application is of value to us as a means for opposing the final allowance to Bernina of broad U.S. claims covering multiple-cam ornamental machines.

If Bernina has filed such an application, we would presume that the U. S. Patent Office would set up an interference with our Harris reissue application within the next four to eight weeks since, as above stated, the Patent Office [fol. 3482] has already unofficially advised us that the claims in our Harris application are allowable over any known issued patents. In view of this situation, we would strongly recommend that this Company attempt to work out with Bernina an agreement along the lines of the Vigorelli-Singer agreement. Our chances of negotiating such an agreement with Bernina would be greatly enhanced if we could approach them before any patent interference is declared. At the present time, we feel that we have more knowledge concerning this entire situation than does Bernina. Thus, up until the time that such an interference is declared Singer would be in the better bargaining position with Bernina, for after declaration of the interference Bernina would, as a matter of course, be given access by the Patent Office to our Harris reissue patent application and then would know that its application has an effective filing date nine days earlier than our Harris application.

We also have information to the effect that several other parties may be placed in interference with the Harris patent application. We have no exact knowledge as to who these parties may be. However, we are not as concerned over the other parties, as it is possible that Harris [fol. 3483] is senior to these parties. As for Bernina, we know that Bernina is the senior party by nine days.

You will note in your copy of Mr. Adamson's letter of January 11 in reference to the multiple-cam ornamental stitch machine that Dr. Wiegand repeats his statement that the "legal situation is extraordinarily complicated" and that as a result of the discussions he had in the German Patent Office at Munich "it will probably be more complicated still than can be judged at the moment". We are fully aware of the "extraordinarily complicated" situation in Germany, and for that matter, most of the important manufacturing countries in the world.

Summary

The present patent situation relative to multiple-cam machines is complicated due to that fact that shortly after World War II many sewing machine concerns developed various forms of this type of machine and then filed at substantially the same time patent applications directed to cover their various developments. Some of these applications were filed as early as 1952. In many of the principal manufacturing countries there will be patent conflicts to determine which parties are entitled to the broadest patent protection. In our opinion, no one party can or will corner the broadest patent protection in all or even in [fol. 3484] several of the principal countries.

Should a Singer competitor acquire in any of the principal countries, with the possible exception of Japan and Switzerland, patents reading upon our Class 319 and Class 282 machines, we are reasonably certain that we can acquire favorable licenses under such patents.

However, we hope to avoid the necessity of asking for such licenses and paying tribute under such patents by negotiating agreements with any such potential patent owners before the world-wide patent picture clears relative to multiple-cam machines. This we have already done with Vigorelli, and we suggest that the same approach be used with Bernina and any other party which appears as a potential owner of a dominating patent.

We believe that our position would be enhanced if we could negotiate an agreement of the Singer-Vigorelli type with Bernina. Presumably, the earlier we approach Bernina concerning this matter the greater would be our chances of success.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

In triplicate.

CC: Mr. D. P. Kircher.

[fol. 3485] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 17

Received Patent Department, February 7, 1956,
Answered—

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

Division of Research

In Replying Please Refer to 31-028 MLW:V3

February 6, 1956.

Personal & Confidential

C. F. Baumann, Esq.,
Milan, Italy.

Dear Mr. Baumann:

Your letter of December 10th tells of a visit that Dr. Lando made to Pavia at the invitation of Mr. Vigorelli, on which occasion some of the photographs taken during our visit in November were handed to Dr. Lando.

It seems that inquiry was made of Dr. Lando with respect to a possible patent conflict between Singer and Necchi. The question related specifically to the type of speed regulator (so-termed) that is used in the Necchi "Supernova" machine and as to whether or not this means of speed regulation conflicted with Singer Patent No. 458583. Our Patent Department has looked into this matter and concluded that this Singer Italian patent is directed to an entirely different mechanism and system from that used in the Necchi "Supernova" machine. Our patent is concerned with a stop-motion system and uses an induction motor with special windings. The low speed of our system is not a working speed but merely an intermediate speed used preparatory to stopping. Our patent relates to a

group-stitch sewing machine system and utilizes machine-operated cams for controlling the sequence of events in the fixed operating cycle. The Necchi mechanism and system is entirely different and does not infringe the Singer patent.

It seems that during Dr. Lando's conversation with Mr. Vigorelli mention was made of the agreement Vigorelli has concluded with Bernina. This is stated to be along the same lines as that concluded between ourselves and Vigorelli last November. We are very much interested to learn of the Bernina-Vigorelli agreement, as confidentially there is the possibility that we will want to meet at some time in the near future with Bernina representatives and discuss similar arrangements. I think, if Dr. Lando could use the excuse of passing on to Mr. Vigorelli the foregoing information concerning the Singer patent, about which he has inquired, as a reason to again visit Pavia and have an informal talk with him, at which time the information I have just given concerning the patent could be passed on to him, there would be a good opportunity to very informally chat about the Bernina agreement. We would [fol. 3486] very much like to know, of course, any further particulars that Mr. Vigorelli might pass out on such an occasion about the agreement with Bernina. We would like to know just how it came about that, after Bernina having pressed as they did for the sum of $160,000 (this figure was mentioned during the course of our visit last November), the ultimate settlement was for no monetary consideration but only on the basis of neither party interfering with the other with respect probably to certain specific patents. We would like to know details of the particular patents that Vigorelli had come across which caused Bernina to drop its demands for the large amount for settlement; the numbers, if possible; and, of course, the inventor and the country in which the patent or patents were taken out. We have surmised at times that perhaps Vigorelli learned of the particular patent which was used as his defense through the oppositions which we entered against Vigorelli and other patents in Brazil, or which we disclosed during the course of our talks with Mr. Vigorelli's patent attorneys.

We would further like to know the name or names of

the officials of the Bernina Company with whom Mr. Vigorelli may have had conversations and, if they were not carried on with principals of the Bernina Company but rather with the patent attorneys of that company, then we would like to know the names of the patent attorneys; and we would like also to know the location of the office of the principals with whom Mr. Vigorelli had his conversations.

I know that in the foregoing I am asking for a considerable amount of information, and it may not be that the kind of a meeting which will be arranged will be one during which all of this can be ascertained, but there is every likelihood that we will be meeting with Bernina before long, and every bit of information which we can have that indicates the reason for Bernina dropping its severe attitude toward Vigorelli will be most helpful.

Plans for my travel to Europe are becoming more fixed, and I am hoping to arrive at Genoa on April 9th on the "Andrea Doria". With me will be Mrs. Waterman and Messrs. Stanford and Graesser. In view of the fact that the Milan Fair does not open until the 12th of April and because of our anxiety to meet with Bernina as soon as possible, provided we continue with our thinking that it is well to bring such a meeting about, we would propose to proceed at once from Genoa to Switzerland and also, of course, provided any meeting with Bernina would necessarily be held somewhere in Switzerland. We are tentatively planning that we would be in Switzerland at least a week, and then we would come back to Milan to visit at the Fair and with you and your organization. Such an arrangement might bring us to Milan around the 17th or 18th of April, and I would suggest that you arrange hotel [fol. 3487] accommodations beginning with the 17th until the 22nd, which is Sunday, on which day we would be leaving on the night train for Paris. If it is necessary to secure accommodations on the train this far ahead, then I would ask that you do so for the four of us. I do not know what the travel arrangements are from Genoa to probably Zurich but, if it is necessary to secure such accommodation ahead, then I would ask that you do this, having ascertained at what time the "Andrea Doria" will probably be dock-

ing and allowing sufficient time so that we could reach the train on th. day of arrival.

A great deal of our travel-plans will depend upon any information that you and Dr. Lando may be able to learn from Mr. Vigorelli about his company's agreement with the Bernina Company.

It occurs to me that, just as an item of conversation during your and/or Dr. Lando's visit with Mr. Vigorelli, you could mention that, when writing you, I had referred to a statement that Mr. Vigorelli made to the effect that he would probably be coming over to the United States early this year and that at that time he had said he would probably be paying me a visit. In this connection, I think you could say to him that you had learned that he was contemplating this trip but that you had learned that I was intending to come to Italy some time during the spring, probably about the time of the Milan Fair, and that I had asked you to pass this word on to him so that he would know that I would not be here in the States for a period of a few weeks about that time.

Very sincerely yours, M. L. Waterman, Vice President.

Letter in duplicate.

cc: Mr. J. G. Stanford.

[fol. 3488] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 18

Personal

February 21, 1956.

Dear Mr. Baumann:

Thank you for your letter of February 11th, in which you advise concerning the possibilities of travel between Genoa and Zurich upon our arrival in Genoa.

The whole idea of going directly to Switzerland is predicated upon two factors. First, that we will have ar-

rived in our minds at a logical and plausible reason, and sufficiently interesting too from the standpoint of the Bernina people, to visit them, and second, that we have been able to establish our contacts with the proper persons and to arrange for a meeting at the desired time.

We can only make a decision upon the first premise when we hear from you and learn the results of your conversations with Mr. Vigorelli and perhaps, have answers to some or all of the questions that we posed in our letter to you previously.

It seems to me that it would be better to spend the night following arrival of the "Andrea Doria" at Genoa and to proceed the next morning, as you have suggested, by early train to Zurich. I suggest, therefore, that, if necessary to do so in advance, accommodations be made for the hotel and our travel. Perhaps, however, you may conclude that it is not necessary for you to make these arrangements immediately, but I shall leave this matter to your good judgment.

Very sincerely yours, ——, ——.

C. F. Baumann, Esq., Compagnia Singer per Macchine da Cucire, Palazzo Singer, Via Dante 18, Milan, Italy.

[fol. 3489] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 19

Received Patent Department, March 6, 1956, Answered —.

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1,800,000,000

Milano, 3rd March, 1956.

Personal

M. L. Waterman Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman,

With reference to your letter of February 6th and further to mine of Febr. 24th, I am pleased to tell you that the meeting between Dr. Lando and Mr. Vigorelli took place at Pavia on February 29th. Dr. Lando was most successful in this delicate mission and has secured, I believe, all the information that you ask for . . . . and perhaps something extra as well. Therefore I cannot do better than attach a translation of his report.

If, as I understand is the case, the Bernina claim to 100 million lire from Vigorelli was based on 20 Swiss Francs (3,000 lire) per machine, this would give us a clue to the quantity of machines that Vigorelli had manufactured up to the time of the agreement. The resulting figure—33,000 in two years—would tie-in with what we already know about Vigorelli's production.

You may now be in a better position to decide about your contemplated visit to Switzerland and to let me know what your definite plans will be. In the event of your adhering to your original intention of proceeding from

Genoa to Zurich, Dr. Lando and I will meet you in Genoa on April 9th.

Trusting that the enclosed will prove helpful,

Yours sincerely, ——, ——.

Enclosed in duplicate—Mr. Vigorelli's negotiations were conducted with the four people named in the report.

[fol. 3490] Translation

Received Patent Department, March 6, 1956, Answered—

Dr. Lando's Report on His Visit to Vigorelli, Pavia, on February 29, 1956

With reference to the contents of Mr. M. L. Waterman's letter of Febr. 6, 1956, I had a meeting with Mr. Vigorelli in Pavia on February 29th and I am setting out below a summary of the information obtained during the course of a long and friendly conversation. Details of the addresses were obtained later from the Swiss Chamber of Commerce and those relating to the patents from Messrs. Cicogna.

After having underlined to Mr. Vigorelli the advantages of the agreement with Singer as revealed in the Harris case (fully recognized by Vigorelli) I proceeded to ask him what were the reasons which caused the change in the Bernina's attitude which, from an original demand for 100 million lire (or 20 Swiss Francs per machine) consented to an agreement which did not contemplate payments of any kind.

According to Vigorelli this change was due to a variety of reasons each of which had its importance and which can thus be summarized:

1) Weakness of the Italian Gegauf-Bernina patent, the contents of which were too generic, and in which the device —common to the Vigorelli machine—which came to be fundamental (multiple cams cooperating with single cam-follower) is described in the patent among the minor details, in fact as one of the possible variations.

2) Weakness of Gegauf-Bernina position vis-a-vis Vigorelli as regards the number of countries in which the respective patents were deposited (4 for Gegauf-Bernina

namely Germany, Switzerland, Italy and U.S., against 17 for Vigorelli).

In fact the "embargo" which Vigorelli would have been able to place on Bernina products in those countries where the latter had not deposited its patents considerably reduced any advantage which Bernina would have been able to obtain in the 4 countries where the patents had been deposited.

3) The exhibition by Vigorelli of patents, of whose existence Gegauf-Bernina thought that Vigorelli was unaware, patents which apart from excluding that the general claim (multiple cams) could be sustained, also left open to discussion the specific claim (single cam-follower) contained in the two patents under discussion.

[fol. 3491] 4) The declaration on the part of Vigorelli of the existence of other patents of the same kind as those mentioned above.

Attached is a complete list of these patents divided into two groups A and B: group A includes those discussed between Vigorelli and Gegauf-Bernina, and group B those forming part of the "reserve" which remain outside the discussion.

The agreement between Vigorelli and Gegauf-Bernina was concluded at Zurich on December 16th, 1955. It consists of an exchange of letters between the two parties in which they undertake "not to raise any opposition" in respect of the manufacture and sale in all countries of the respective zig-zag machines, in accordance with Vigorelli patents Nos. 497.557 and 507.862 (Italian), and Gegauf-Bernina patent No. 310.788 and patent application N. G. 91.361 (Swiss).

Both parties further undertake not to cede to third parties manufacturing rights based on the above quoted patents, with the exception for Gegauf Bernina of the Spanish firm A. Fraire, and for Vigorelli of Francolite Vigorelli do Brazil.

Vigorelli has shown me that as far as he is concerned this clause is destined to remain without practical application since he has no intention of ceding this right to Francolite Vigorelli do Brazil.

The address of Messrs Fritz Gegauf is the following:

Fritz Gegauf, Societé Anonyme
Fabrique de Machines a Coudre Bernina
Steckborn—Telephone (054) 82482, Telegrammes Bernina

Outright owners of the business are Messrs Fritz Gegauf Senior & Junior. The father is a man of about 60, very energetic, suspicious, argumentative and with a difficult character; the son is around 30, more adaptable but with less say in things.

For patent matters Gegauf-Bernina rely on Messrs Blum & Co., Patentanwalte Bureau, Bahnhofstrasse 31, Zurich, Telephone No. 251.633; the head of which is Mr. Eugen Blum who speaks French, German and English fluently. The principal expert, however, is Engineer A. Willi who speaks German, French and Italian fluently. [fol. 3492] The series of questions put to Vigorelli in the course of the conversation during which other subjects were touched upon, such as the likelyhood of a trip of Vigorelli to New York during the absence of Mr. M. L. Waterman (postponed sine die because of his uncertain health), the Harris "interference" and Necchi's speed regulator, could not fail—even if put in the most casual way—to raise Vigorelli's curiosity as to the motive behind them.

I repeated what I had already mentioned at the start of the conversation namely that we were interested in discovering how Vigorelli had managed to reach an agreement with Bernina without the compensation originally requested.

Mr. Vigorelli's reply was interesting "I was under the impression that Singer was collecting information for opposing the Gegauf-Bernina patent in U.S. and prevent the sale of their machine there". On my expressing some doubt as to the correctness of his interpretation Mr. Vigorelli was unable to hide some disappointment.

Dr. S. Lando

Milan Management, 2nd March, 1956.

[fol. 3493] Reference Cited During the Prosecution on the Application for Vigorelli Patent

List A

Exam. in	Patent	Inventor	Number	Remarks
U.S.A.	U.S.	Sigoda	2.365.222	67
U.S.A.	U.S.	Van Tuyl	2.590.907	47
U.S.A.	U.S.	Karlsson	2.600.543	309
U.S.A.	U.S.	Magowan	19.184	309 (1908)
U.S.A.	U.S.	Bitzer	2.005.070	1
U.S.A.	U.S.	Miller	1.033.721	36
U.S.A.	U.S.	Harris	2.693.778	—
U.S.A.	French	Denis	784.689	1 (May 6, 1935)
Canada	Canadian	Segoda	465.162	72
Austria	German	Mefina	825.333	309
Germany	German	Durkopp	178.086	67
England	English	Magowan	19.184/08	—

[fol. 3494] Reference Cited During the Prosecution on the Application for Vigorelli Patent

List B

Exam. in	Patent	Inventor	Number	Remarks
Canada	Canadian	Parkes	73.837	71 U.S. 652.326
Canada	Canadian	Parkes	75.859	67
Canada	Canadian	Francis	194.095	67
Japan	Japanese		138/1955	(Publication Dom. 11.318/1951)
				309
Germany	U.S.	Dunbar	88.282	(1869)
Germany	German	Parkes	219.187	
Germany	German	Casas-Robert	871.105	
England	English	Jackson	476.079	9
Sweden	German	Durkopp	517.822	311
	German	Beckmanns-hagen	802.364	309

[fol. 3495] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 20

Received Patent Department, March 21, 1956, Answered—

March 14, 1956.

Confidential

E. Winteler, Esq.,
Geneva, Switzerland.

Dear Mr. Winteler:

Thank you for your letter of March 6th in reply to mine of March 1st, in which I told of our intention to visit you in April and of the possibility that we would want to talk with the responsible management of the Bernina Company, Messrs. Fritz Gegauf. As time is becoming short before we shall be departing, we have been giving study to this subject and have concluded that we definitely wish to meet with these people. The subject which we want to discuss with them concerns measures that we and Messrs. Gegauf together might take to avoid conflicts between patent applications owned by Singer and by Gegauf relative to zigzag machines which have incorporated in them multiple cams for doing at will any one of a number of embroidery effects, as may be produced by any one of these cams.

However, before we talk with Messrs. Gegauf's representatives, we shall be seeing our own Singer patent representatives in Switzerland about the subject we shall be discussing with Messrs. Gegauf. Mr. Stanford has written to Mr. Fairweather advising him to this effect, and I have no doubt that Mr. Fairweather has by this time written to these Swiss representatives telling them of our visit. I think, however, it would be well that you ascertain from our patent representatives in Switzerland, with whom you are doubtless taking up many miscellaneous matters from time to time, whether they have been notified by Mr. Fairweather of our approaching visit. I am not sure whether the office of these people is in Geneva or in Zurich, but I am inclined to believe it is in Geneva. I have no doubt, however, that they will be willing to meet with us at Zurich, where we will

be staying, and which is closer to the Gegauf headquarters, which I believe are at Steckborn.

Since we are arriving in Zurich on the 10th, and there may be a number of days required for the discussions with our patent attorneys and with the people from Gegauf, we would like that representatives of our patent office be prepared to meet with us in Zurich beginning the morning of Wednesday, April 11th, and for as long as may be required [fol. 3496] for the preliminary discussions with them, which we thing should be completed on that day, and then throughout the discussions that we may have with the Gegauf people, the duration of which we cannot, of course, venture any opinion on. We would hope that our patent lawyer, or lawyers, who would attend this meeting would speak English or that they would have with them some person conversant with patent language who could act as translator, since neither Mr. Stanford nor I understand French or German technical language fluently.

If the foregoing arrangement with our patent attorneys can be arranged, we would anticipate that we would be in a position to talk with the representatives of Messrs. Gegauf on the following day, Thursday, April 12. We would appreciate it, therefore, if, after the arrangements with our patent attorneys have been firmly established, you would then visit the management of Messrs. Gegauf and arrange for Mr. Stanford and me to meet these persons. Whether this meeting would best be held at Steckborn or whether the Gegauf representatives would come to Zurich we leave to your judgment and arrangement. We believe that, when we talk with the persons of Messrs. Gegauf, our Singer patent attorneys should be present. We think that the subject we wish to discuss with Messrs. Gegauf will be one of interest to them and that they will wish to have present representatives of the patent firm that represents them. Perhaps the attorneys for both sides will not be present in the preliminary talks that may precede the actual discussion of the subject we wish to talk with them about but, certainly, the patent attorneys of both parties will wish to be present shortly after the initial meeting and as the talks progress.

We do not know where the attorneys of Messrs. Gegauf may have their office but, if it is in Zurich, it is quite likely that all of the discussions can best take place in that city.

Again, we do wish to leave to you the concluding of the agreement with Gegauf as to where our meeting shall take place. If this is to be at Steckborn, which is some little distance from Zurich, we would leave it to you as to what hotel arrangements should be made.

We have learned from other sources that the executive heads of the Gegauf Company are Messrs. Fritz Gegauf Senior and Junior, and I rather presume that these will be the gentlemen we will want to talk to and that will want to talk with us. We also have some information that indicates the patent attorneys of Messrs. Gegauf to be Messrs. Blum & Company, Patentanwalte Bureau, Bahnhofstrasse 31, Zurich, and that the head of this concern is a Mr. Eugen Blum, who speaks English fluently. There is also with the patent firm an engineer, A. Willi, who has knowledge of several languages but does not appear to speak English.

We are planning to leave the United States on the [fols. 3497-3498] "Andrea Doria" on Saturday, March 31st, and will disembark at Genoa, April 9th. It is quite necessary, therefore, that we know at the earliest possible moment of the results of your endeavors to set up the meeting with our own patent attorneys and with Gegauf. We hope that we shall receive a reply from you advising of the results of your endeavors to meet with all of these persons soon, so that, if there are any further details that we may need to take up with you before our departure, we will be able to do so either by letter or by cable. Any information that you have on this subject and which may come to you after our departure from New York and while we are en route about which you would wish to have some advice from us can be cabled by wireless to the ship.

Very truly yours, ——, ——, Vice President.

[fol. 3499] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 22

Received Patent Department, March 27, 1956, Answered—.

Compagnie des Machines a Coudre Singer S.A.
Siège Social

Zurich, March 23, 1956.

Your Ref.: 30-019 MLW:V3

Confidential

M. L. Waterman, Esq.
Vice-President
The Singer Manufacturing Co.
149, Broadway
New York 6, N. Y.

Dear Mr. Waterman,

I wish to thank you for your letter of March 14, from which I conclude that you have definitely decided to meet the responsible managers of the Bernina Company, Messrs. Gegauf, whose headquarters are at Steckborn.

I had meanwhile contacted Mr. Fairweather, in Glasgow, and received the following cable from him:

> "our preferred associates in switzerland are deriaz kirker and co of rue du mont blanc 14 geneva stop if mr stanford is to be in zurich only he could consult patentanwalts bureau fritz isler of pelikanplatz 15 zurich who have filed numerous singer patent applications in switzerland and who are quite competent attorneys patents".

Mr. Fairweather has notified Messrs. Deriaz, Kirker & Co., Geneva, of your approaching visit and moreover, in his above wire, he recommends Mr. Fritz Isler of Zurich as a competent patent attorney.

Since I am in Zurich at present, I have taken further steps and seen Mr. Isler. This gentleman speaks German,

French and English fluently, including the technical language, and, as a further advantage, resides in Zurich. [fol. 3500] With Mr. Isler being present at our discussions, a second interpreter would become unnecessary.

Thus, both Mr. Kirker of Deriaz, Kirker & Co. and Mr. Isler would be at our service.

Furthermore, I cabled you yesterday as follows:

> "have contacted management bernina messrs. gegauf arranged meeting thursday april 12 in steckborn letter follows"

and confirm that I have got in touch with Messrs. Gegauf of the Bernina Company at Steckborn and arranged for you and Mr. Stanford to see these gentlemen on Thursday, April 12, in the morning. Messrs. Gegauf prefer to meet you at Steckborn and thus to have the opportunity of showing you their factory on this occasion. Steckborn is at only one hour from Zurich, and it is therefore not necessary to make any changements regarding the hotel accommodations.

As I am personally not familiar with any details about the matter, I have told Messrs. Gegauf that the subject to be discussed will be "patent questions".

I am pleased to say that all necessary arrangements regarding your visit have been made in accordance with your instructions and you can be assured that you will find everything in best order.

Wishing you a pleasant journey and looking forward to seeing you in Zurich, I am, dear Mr. Waterman,

Yours very truly, ——, ——.

[fol. 3501] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 23

Duplicata
Dériaz, Kirker & Cie

Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fundé en 1877 par

E. Imer-Schneider

Brevèts D'Invention
Marques de Fabrique
Modèles Industriels
Messrs. Cruikshank & Fairweather,
29 St. Vincent Place,
Glasgow, C.1.

Genève
Rue du Mont-Blanc 14

Date 17th April, 1956.

Dear Sirs,

Re: The Singer Manufacturing Company.

Referring to your letters of the 16th and 23rd ult., we would inform you that the writer went to Zurich on the 11th inst. and stayed there until the 21st with Mr. Waterman, Vice-President of The Singer Manufacturing Company, and Mr. Stanford.

We had two meetings with the manufacturers of the Bernina sewing machines (Gegauf Aktiengesellschaft, Bernina-Nähmaschinenfabrik) and prepared, after several interviews and discussions with your client's representatives, an agreement which was signed by both parties on the 14th inst.

We believe that this agreement corresponds exactly to the wishes of both parties and that the latter were well satisfied.

The question of our bill was not raised and we would ask you if, under the circumstances, we have to send it to you.

We are taking this opportunity for sending you by the same mail two copies of an English translation of the new Swiss Patent Law, of which we spoke with Mr. Waterman.

One is for your office and we would ask you to kindly send the other to Mr. Waterman, to whom we promised it.

Yours faithfully, Deriaz, Kirker & Cie.

enclosures (sep.)

2 transl of the Law.

Received Patent Department, April 24, 1956, Answered—.

[fol. 3502] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 24

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

Division of Research

In replying please refer to 31-026 MLW: V3-9

Dictated at Zurich, April 13, 1956.

Memorandum to: Mr. M. C. Lightner

I have cabled to you briefly concerning the results of the conference at Steckborn with Mr. Gegauf of Bernina. We arrived there about 9:00 in the morning (it is only an hour's drive from Zurich) and, for a period of an hour, talked about many things that had no bearing on the subject we were to talk with them about. Mr. Gegauf brought out at once that they were working on a very short material situation. Their die castings were only one to two days ahead of the factory and, hence, the factory people, or some of them, have to go home every day in the middle of the day or later in the afternoon. So, he wanted us to go out through the factory, as soon as we cared to do so, in the morning rather than in the afternoon.

Before going out, we talked over various subjects. He mentioned Turissa and how Migros is quite dissatisfied with their ownership and arrangement for the sale of

Turissa machines. It seems that the Turissa costs are so high that at the price at which Migros wishes to sell them there is no profit. I judge that the situation is a very unhealthy one. We then talked about Helvetia, and it looks as though they are just about at the end of their rope. They have no more money, and the affair with Australia did not go well. Their machines are not liked there, and the story is that they will not receive any more orders for this market.

Gegauf's big fear is that the Japanese machines coming into the United States will be sold at a lower price than his machines will be because of their low-price labor. I think his fears are well-founded, and we did not do anything to cause them to be other than along the line that he was thinking, because one of the strong points of our argument for the agreement between our two companies is in order to fight against this Japanese competition in their building a machine that in any way reads on the patents of ourselves and of Bernina which are in conflict.

I sensed that there is no good feeling between Tavarro, the makers of Elna, and the Gegaufs. Mr. Gegauf states that the sale of Elna machines is on the downward path in Switzerland and that his sales last year were 17,000 in Switzerland versus Elna's 9,000.

[fol. 3503] After sparring about for an hour on various subjects without having touched on the matter of patents, we went out for a visit through the factory. I was exceedingly well-impressed with it—its cleanliness, its machinery, its type of people, and I was well-impressed with the machines that they are building. There is no doubt, too, but that the Gegaufs are well-impressed with their own machine and their own situation. Their only problem is to get more material and to build more machines. They are going to enlarge, but it is evident that the Gegaufs are somewhat conservative, and they do not intend to in any way go to extremes.

One of the difficulties of our conversation of yesterday was that there were too many people present. There was Stanford and myself and two patent attorneys for us, and there were the two Gegaufs, father and son, and a patent attorney for them and three others of the top management of the Bernina Company. During the course of our talk,

a great many things were thrown out by one of these latter three. They all had no bearing upon the patent situation, but this person evidently thought he could do some bargaining. One thought expressed was that Singer should sell Bernina full-size cylinder zigzag machines in Singer shops, not only in Switzerland but also elsewhere. Another thought was that Bernina shops should tell customers who might want a flat-bed machine to go to Singer and that Singer shops should tell customers wanting full-size cylinder zigzag machines to go to Bernina shops. Both of these ideas were disposed of in rather easy manner, although some talk was required. It was even suggested that there should be a division of territories as between Bernina and Singer, and this was brushed aside pronto in short order, and I am sure they understood the reason why. Throughout the discussions, it was very evident that they were extremely afraid that Singer wanted to build a machine exactly like their present style machine, which, there is no doubt, they feel is just about the best multi-cam automatic zigzag machine of all those on the European market; and they would like to have that kind of a statement in any kind of an agreement that we might draw up with them. Of course, the difficulty in putting any such statement or anything of that kind in an agreement is that it is hard to set-forth just what features of their machine we would not want to put in any machine at some date in the future. Who knows what we will want to do two or three years from now. I am sure that there could be no words that would set-down without being subject to a great deal of questioning just what they might mean at a later date.

This morning, Friday, Mr. Stanford and our patent lawyer are trying to word-up a draft which will have nothing in it with respect to any machines that Bernina is now making or that Singer is now making or that either one of them intends to make in the future, but which will have in it only reference to the patent subject matter under discussion. We certainly left with them not doubt but that we were going to offer objection to the issuance of their patent not only in the United States but in every other country of the four in which they are seeking patent or have patent protection, and we let them know that we thought we could knock out their claims but that in so

doing we were probably going to hurt both of us. I think that at the end of our long meeting they felt a little bit different about their situation than they did when we started because they went into a huddle and actually drew up a paper which they were willing to sign and I won't say wanted us to sign but which we could sign, and perhaps [fol. 3504] you might say it was a paper acknowledging the intent to sign an agreement, but this paper had in it too much about not building a machine of their type and their not building a machine of our type and so forth. So, we broke up in good spirits and with the intention of meeting here in Zurich tomorrow afternoon. By that time, we shall have a draft of a paper prepared which we think will relate only to patents under discussion and which will be a more simple one with less words and one about which at some time later be less question.

M. L. Waterman.

[fol. 3505] In United States District Court

Government's Exhibit 25

Translation

On the basis of the to-day's discussion between Mr. Waterman, Vice-President of the Singer Co., New York, accompanied by the patent attorney of the Singer Co., Mr. Stanford, as well as Mr. Kirker of the patent attorneys' office Dériaz, Kirker & Co., Geneva, and Mr. Winteler, Manager of the Swiss Singer Co., on the one hand, and Messrs. Fritz Gegauf sen., Fritz Gegauf jun., H. Bernhard and F. Meyer of the Company Fritz Gegauf Aktiengesellschaft, Steckborn, and Mr. Willi of the patent attorneys' office E. Blum & Co., Zurich, on the other hand, the following agreement has taken place with to-day's date:

Both parties have the will to conclude a contract (agreement) on the following points, in view to respect reciprocal interests and to safeguard their common interests against third parties.

1) Singer Co. undertakes neither to manufacture nor to allow to manufacture, and neither to sell nor to allow to

sell sewing machines of a kind to be defined more precisely, of the Company Gegauf AG.

Conversely, the Company Fritz Gegauf AG. undertakes neither to manufacture nor to allow to manufacture, and neither to sell nor to allow to sell sewing machines of a kind to be defined more precisely, of the Singer Co.

The said reciprocal provisions are valid for all countries.

2) Singer Co. undertakes neither to attack nor to allow to attack the patents and patent applications of Fritz Gegauf AG. to be defined more precisely, respectively not to support in any way attacks (against such patents and patent applications). Moreover, Singer Co. undertakes to respect said patents and, in case of need, to give assistance to Fritz Gegauf AG. in the defense of the said patents.

Fritz Gegauf AG. undertakes neither to attack nor to allow to attack the patents and patent applications of Singer Co. to be defined more precisely, respectively not to support in any way attacks (against such patents and patent applications). Moreover, Fritz Gegauf AG. undertakes to respect said patents and, in case of need, to give [fol. 3506] assistance to Singer Co. in the defense of the said patents, as far as such an assistance lies in the field of interests of Fritz Gegauf AG.

[fols. 3507-3508] 3) Fritz Gegauf AG. undertakes not to attack in any way the said construction of the kind still to be defined more precisely of Singer Co., with their patents to be more precisely specified later.

Singer Co. undertakes not to attack in any way the said construction of the kind still to be defined more precisely of Fritz Gegauf AG., with their patents to be more precisely specified later.

[fol. 3506] 4) Agreements already existing and having taken place before conclusion of the present agreement must be communicated reciprocally before signature and necessitate the approbation of both parties.

Steckborn, April 12, 1956.

[fol. 3509] IN UNITED STATES DISTRICT COURT

GOVERNMENT EXHIBIT 26 (S-3)

Agreement

The Singer Manufacturing Company (hereinafter called "Singer"), a Corporation organized and existing under the laws of the State of New Jersey, United States of America, is the sole owner of Harris U.S.A. Patent No. 2,693,778, filed on the 9th of June, 1952, and of corresponding reissue patent application No. 516,059 as well as the following corresponding Harris patents and patent applications:

		No.	dated:	filed:
British	Patent	730,436	May 21, 1953	May 21, 1953
Belgian	Patent	520,285	May 28, 1953	May 28, 1953
Canadian	Patent	514,053	June 28, 1955	June 6, 1952
French	Patent	1,083,582	June 5, 1953	June 5, 1953
Italian	Patent	509,535	June 5, 1953	June 5, 1953
Canadian	Appl.	688,268		June 22, 1955
German	Appl.	H 16,599		June 3, 1953
Japanese	Appl.	10,103		June 5, 1953
Swedish	Appl.	5,211		June 5, 1953

Fritz Gegauf Aktiengesellschaft, Bernina Nähmaschinenfabrik, in Steckborn (hereinafter called "Gegauf"), a Corporation organized and existing under the laws of Switzerland, is the sole owner of Swiss Patent No. 310,788, filed on the 31st of May, 1952, as well as the following patents and patent applications:

Italian Patent No. 501'172
German Gebrauchsmaster Registration No. 1,707,338
U.S.A. Patent application No. 358,377
German Patent application No. G 11,654

[fol. 3510] Singer and Gegauf realize that interference proceedings are about to be opened in the U.S.A. between the said Harris reissue application and one or more patent applications of Gegauf corresponding wholly or partly to its above mentioned patents and patent applications.

In view of the foregoing, Singer and Gegauf have entered into the following agreement.

1) Singer and Gegauf each undertakes not to do anything, either directly or indirectly and in any country, the result of which might restrict the scope of the claims of the other party relating to the subject matter of the above mentioned patents and patent applications.

Singer and Gegauf each undertakes, in accordance with the laws and regulations of the Patent Office concerned, to facilitate the allowance in any country of claims as broad as possible, as regards the subject matter of the patents and patent applications referred to above.

2) Singer undertakes not to attack Gegauf, either directly or indirectly, in any country:

a) on the basis of any of its above mentioned patents or patent applications.

b) for the present construction of the BERNINA Sewing Machine as shown on the photograph attached to the present agreement and signed on the back by both parties.

[fol. 3511] 3) Gegauf undertakes not to attack Singer, either directly or indirectly, in any country, on the basis of any of its above mentioned patents or patent applications.

4) Singer undertakes not to manufacture or sell a construction which would be a slavish copy either of the present construction of the Bernina Sewing Machines—taken as a whole—which is shown on the attached photograph, or of the feeler and multiple cams mechanism the said Bernina construction includes.

5) Singer undertakes to give to Gegauf, on request of the latter, the amical assistance of its patent attorneys for the defense of any of the above mentioned Gegauf patents or patent applications against an action in cancellation.

6) All agreements already concluded by either party and concerning or having a connection with any of the above mentioned patents or patent applications must be communicated to the other party for approval before signature of the present agreement.

7) Singer, as designated in this agreement, shall be understood as including The Singer Manufacturing Company, Singer Sewing Machine Company, their subsidiary, affili-

ated and associated companies and customers throughout the world.

Gegauf, as designated in this agreement, shall be understood as including Fritz Gegauf A.G., Bernina-Nähmaschinenfabrik, its subsidiary, affiliated and associated companies and customers throughout the world.

[fols. 3512-3514] In Witness Whereof, the parties have executed this agreement in duplicate in Zurich, this 14th day of April, 1956.

The Singer Manufacturing Company
By M. L. Waterman Vice-President.

Witness: ——

Fritz Gegauf A. G., Bernina-Nähmaschinenfabrik
By F. Gegauf.

Witness: ——

[fol. 3515] In United States District Court

Government Exhibit 27 (S-7)

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

Division of Research

In Replying Please Refer to 30-021 MLW:V3-9

Notes Dictated at Milan, Friday April 20, 1956.

The second meeting with Gegauf representatives was held in Zurich last Saturday afternoon. At the beginning of this talk, Mr. Gegauf said that he had called Mr. Vigorelli early that morning and told him of the fact that he was about probably to sign an agreement with us concerning his patents and our patents having to do with certain aspects of zigzag machines. In December of last year, Mr. Gegauf and Mr. Vigorelli had agreed together, through letters which each gave the other, not to interfere with the patents of the other concerning certain of their patents on multi-

cam machines. At that time, they had agreed that they would not do anything with respect to other parties concerning these same patents without advising the other.

We intended to talk with Mr. Vigorelli when we would come to Italy and to make the arrangements immediately we arrived, but he had before our arrival talked with Dr. Lando, and it was agreed that when we did arrive an arrangement would be made for a discussion, and today's talk was the result of that statement. What Mr. Vigorelli had on his mind was that now that Singer, Bernina and Vigorelli had arrived at certain agreements they should thereafter act in concert against others. This, we very promptly said to Mr. Vigorelli, was out of the question, and he was advised that what appeared to us to be proper action was for each one to prosecute his own patents and take care of any cases of infringement that might appear. We stated that, certainly, this would be Singer's attitude with respect to the patents that it owned, and cited, because we knew that he knew of it already, the actions that we had taken against Pfaff and against Durkopp with respect to industrial machines.

It came out during the talks with Vigorelli that, because of patents about which he had learned during our conversations with him in November, he had been able to present a case to Bernina which had resulted in Bernina's withdrawing its demand for a large sum of money for the infringement of its patents by Vigorelli. We had always suspected that this was the reason for the withdrawal of the demand by Bernina but had never had definite knowledge of this fact until during this present day's conversation. It came out also that Mr. Gegauf had been a very difficult man to deal with in the case of the Vigorelli talks. We had noted from remarks made by Mr. Gegauf that he had little respect [fol. 3516] for the Vigorelli patents or, in fact, for the Vigorelli Company's activities. Upon learning that there could be no joint action by the three companies who have been mentioned in prosecuting patents against all others in the field, that subject was dropped and remarks centered on what Mr. Vigorelli believed to be the infringement of his patents by Durkopp, and possibly by Phoenix, and what could be done about that (perhaps I should say what should be done about that). The conclusion was that it was proba-

bly best to await final action in the United States on the interference that has been met and the issuance of the German patent to Gegauf.

At this point, it should perhaps be mentioned that Mr. Stanford and I have discussed between ourselves whether we should say anything to Mr. Gegauf about our feeling that we could prosecute his patents that will be issued sometime within the next few months in the United States better than perhaps he could if we owned them, but we had decided not to say anything to Mr. Gegauf about this at this time.

In talking with Mr. Vigorelli's lawyer, Mr. Stanford dropped this view to him. The point was immediately understood, and the question was raised if we would have any objection if they were to pass the word on to Mr. Gegauf that they were raising this point. We said that, of course, we would have no objection but that we ourselves did not wish to do this, and we would not want the suggestion coming to Mr. Gegauf at this time as from us. If they wanted to suggest it, it was all right. We would, of course, under such an arrangement have to give a license to Gegauf under the patent that he would turn over to us. Mr. Stanford believes that he would be able before the patent is issued to rewrite the claims and make it stronger than it now is and that it is a fact that, being in the United States, we would be better able to prosecute any claims against this patent than would Mr. Gegauf.

The talks with Mr. Vigorelli and his lawyers were carried on in very good spirit. Mr. Vigorelli was told in very general terms of the agreement with Mr. Gegauf, except that we did not mention those very special ones that had to do with Singer's not building an exact one hundred percent copy of the present Gegauf nor any of the other details except that neither party would act against the other in connection with the particular patents or patent applications that were listed.

Following are some interesting sidelights that came out of the talks with Mr. Vigorelli. He now has no dealer in the United States. He had made an arrangement last fall with the firm of Maria, whom we have heard about as operating extensively in Honduras. We looked up this Maria and found him to be a very wealthy man. He has very considerable other interests and has informed Mr. Vigorelli

that he does not see how he can carry on with respect to sewing machines. I was wondering myself if it might not be that he has decided to take on representation of Japanese machines or some one Japanese machine rather than this Italian machine. This, of course, leaves Mr. Vigorelli in quite a bad spot. He has already reduced his production considerably and has let a number of employees go. He stated, however, that this was a good thing for him inasmuch as at one time when he had wanted to borrow some money from American interests, and I rather concluded [fol. 3517] that this was from some one of the American agencies that are operating in Italy, such loan had been refused because of the fact that he had in his organization as workers a number of Communists. He said that this letting of people go had given him an opportunity to get rid of those kind of people.

Mr. Vigorelli is, naturally, quite disturbed about the infringement by Durkopp, and perhaps by Phoenix of his patent. Mr. Stanford and I had noticed too that at the Milan Fair there was little interest on the part of the representation to demonstrate the new machine. Mr. Stanford believes there is a possibility this machine may infringe some of our patents. Mr. Vigorelli appeared to me during the conversations to be exceedingly tense and nervous. I do not believe that he is a well man. He even inquired if we could give him a lead as to who might take on his representation.

The result of our conversations with Mr. Vigorelli is surely that he understands that, in our view, he must act against all infringements of his patent, Singer must act against all infringements of its patent and Gegauf must do likewise.

M. L. Waterman.

[fol. 3518] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 28

Received Patent Department, May 7, 1956, Answered —.

Monday.

Dear Chet & Marshall:—

Thank you for your letters. Sorry you have had no further word from White—probably is going to make us sweat it out. Glad to know "you all" won the bowling league championship. I've got money on you with MLW & Dave, and they have just written to Bridgeport telling them to "mow you down" or else. They say they want *pounds* of Joe's flesh.

We wrote Gegauf today telling of the dual relation of his U. S. attorney. When in Italy we laid careful plans for Gegauf to be advised by a third party that Singer could best handle the patent situation if we owned the Gegauf U. S. patent. Think it will bear fruit. This suggestion, with the U. S. attorney situation is pressure in the right direction.

Enclosed is the Belgium patent of Mschmitt. Have finally concluded that they filed automatic cam feature on Nov. 25, 1954. Topped again by a few days—"sho is hell"—but it seems to me that we have them in the United States. Could be much worse. Also, am enclosing a search through Italian patents made in Rome. You will see that corre-

[fol. 3519] sponding patent has been filed in Italy—am telegraphing Lando to please obtain copy of patent & send to us—(have copy made). Have you checked through British patent applications filed lately? Best check. Will see Messerschmitt on Thursday—no telling what will come out of the discussion. There is a crying need over here for a cylinder bed machine—to me its a *must*. Enclosed also is copy of drawing of Messerschmitts recent Italian patent on feeding mechanism.

Saw Frankel & Kirchner here today. They are going ahead with transmitter. Also want to play ball on needle-positioners. Hold enclosed green paper sketch of their new construction & I'll tell you about it when I get home.

(one day later)

Had a talk with Wurker—he is going to reconsider & let us know shortly. Feel that his mind has been changed very much against his will. My parting shot was "I can not understand an attitude, the result of which would and could only generate ill will between friends, one of which was a good customer of the other." Of course, prior to this statement I had informed him that even if his patent was valid, which I doubted, the only result that could possibly accrue to him was to put Singer to the annoyance of supplying the original attachment in Germany. He admitted there were no other patents of his in other countries.

2 days later

Saw the Messerschmidt people today—they don't want [fols. 3520-3522] to sell s/m business. Say they never again want to be in airplane business only. Tough to deal with. Knew of 319 m/c & want one to study before final decision.

Think we should push U. S. Perla 319 m/c application like hell. (Do you agree?) Bell has them believing they are ahead. They have term contracts with Bell & others.

One week from today & I'll be heading home.

Regards & Sincerely, JGS.

[fol. 3523] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 30

Received Patent Department, June 14, 1956, Answered —.

31-026 MLW:V3

June 11, 1956.

C. F. Baumann, Esq.,
Milan, Italy.

Dear Mr. Baumann:

When I was in Milan, you will recall that we had a conference with Mr. Vigorelli and his attorneys. During this conference, the idea was put forward, I believe by Mr. Vigorelli's attorney, that it would be advantageous to all parties if Singer owned the Gegauf United States Patent Application No. 358,377. It was thought that it would be best if the suggestion that Gegauf transfer his patent application to Singer come to Mr. Gegauf from Vigorelli or some other source than Singer. It was left that Mr. Marcello Magnoni, Mr. Vigorelli's patent attorney, would write or otherwise convey to Mr. Gegauf's patent attorneys in Zurich the suggestion that the transfer be made and, at the same time, set forth its advantages to all parties.

I am expecting a visit here in New York from Mr. Fritz Gegauf, Jr., in July and, before his arrival, I would be interested to know if Mr. Magnoni has transmitted the suggestion to Mr. Gegauf's attorneys. Will you please make inquiry as to whether or not this has been done.

Very truly yours, M. L. Waterman, Vice President.

cc: Mr. J. G. Stanford, Elizabethport

[fol. 3524] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 31

Received Patent Department, June 22, 1956, Answered —.

Compagnia Singer
Per Macchine da Cucire
Direzione Generale
Milano

Via Dante, 18

Per J. G. Stanford Esq., Elizabethport

19th June, 1956.

M. L. Waterman Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman,

The matter raised in your letter of June 11th has not been lost sight of and coincident with the receipt of your letter we have to-day received a communication from Ing. Mainoni which would indicate that there are good prospects for the transfer of the Gegauf patent to Singer being brought about.

While I attach a copy of Mr. Mainoni's letter, I cannot do better than give you below a translation of same:

> "'"Subject: Interfering patents Singer/Gegauf/Vigorelli
>
> With regard to the question of the advantage of the American Singer Company being in possession of the different patents which might be useful in defence of sewing machines with multiple cams, the writer has lately had the opportunity of talking to the Patent Attorneys of Mr. F. Gegauf on a number of occasions and the conversations have developed in such a way that the possibility and advantage that the Gegauf patent application in the States be assigned to Singer could be considered in a definite way.

Because of the particular character of the question, this was done in such a way as to prompt an initiative to this end by Gegauf. The writer has good reasons to believe that such a point of view might be accepted by Gegauf.

I believe that in the next few days Messrs. Gegauf will get into touch with the writer with this end in view and should this hoped for occasion come about he will be able to report freely on the conclusion of the question which it is hoped will be a favorable one.

[fol. 3525] " " " "Obviously the writer has discussed the matter without in any way letting it be known that your firm was aware of the advances which would be made.

Yours very truly, signed Ing. Mainoni""""""

You can rely on us to follow the matter up.

Yours very truly, Compagnia Singer
per Macchine de Cucire.

cc: Mr. J. G. Stanford, E'port

[fol. 3526] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 32

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni

Sede Milano—Stabilimenti Monza

Capitale Sociale Lit. 1.800.000.000

Milano, September 19th, 1956.

J. G. Stanford, Esq.
c/o Singer Nähmaschinen Akt.
Kusenterstreet 11
Munich.

Dear Mr. Stanford,

I had today the visit of Mr. Majnoni, Patent Advise; of Vigorelli, who gave me some information which I feel might prove useful to you during the conversations that—according to the same source—you are about to have with the Gegauf people.

I have immediately phoned our shop in Munich asking them to tell you to get in touch with me over the phone.

Meanwhile, summarized, I beg to send you the above information:

"Mr. Gegauf is today effectively willing to transfer his patent application in the U.S. to the Singer, without regard or with little regard to the financial side of the matter. The interest of Mr. Gegauf in the matter has been arisen by the following developments:

during the various discussions between Vigorelli and Gegauf (wherein Gegauf stated that the Vigorelli ZZ/A machine was infringing the Italian Gegauf patent), Mr. Gegauf has been strongly impressed by the fact that the U. S. Van Tuyl patent No. 2.590.907 might very dangerously anticipate its invention. In effect, a third party who might know that the said Van Tuyl patent exists might take steps for having the Gegauf German patent held not valid.

Mr. Gegauf is particularly and prevailingly interested to have a note objectionable patent in Germany, and for such

end he made informally known to Mr. Vigorelli that the withdrawing of the Vigorelli application in the U. S. would be greatly appreciated, to prevent the issuance of a printed patent wherein the fact that the Van Tuyl patent exists will be made known to third parties. Informally, through Mr. Majnoni, Vigorelli agreed with the withdrawing of his U. S. application on condition that any other interested party (say, unnamedly, Singer) agree too, and that another application (say, consequently, the Gegauf one) might be put at disposal of the said other interested [fol. 3527] party in lieu of the Vigorelli one, to make broader the protection of the machines in the U.S., in addition to the Harris patents.

Mr. Gegauf's mind has been therefore directed to the convenience of transferring his U.S. application to Singer.

Mr. Majnoni pointed out that Vigorelli would consequently drop any direct means adapted to protect his machines in the U.S., but he is quite sure that Singer will take care of the protection of the machines of the general type of interest, by making use of the owned Harris and Gegauf patents.

Further, Mr. Majnoni thinks that the claims of the Gegauf still pending application probably might be completed by ones in which some of the Vigorelli features, if of interest, would be protected."

Always at your disposal for any further requirements, I remain,

Yours very truly, S. Lando.

[fols. 3528-3529] IN UNITED STATES DISTRICT COURT

GOVERNMENT EXHIBIT 33

Fritz Gegauf Limited
Steckborn (Switzerland)

Confidential

Mr. M. L. Waterman
Vice-President
Singer Sewing Machine Company
Singer Building
New York, N. Y.
U.S.A.

FH

September 3rd, 1956.

Dear Mr. Waterman,

We refer to the recent visit of our Mr. Gegauf junior with party at your office in New York City, and thank you for your kind reception.

Your suggestion as to the pending U.S. patent re automatic embroidery stitching has been taken up with Mr. Gegauf senior and we can inform you that we might be interested in such an agreement.

We therefore kindly ask you to put your suggestion in writing and let us have it at your earliest convenience.

We agree that something should be done against Japanese competition in your country and maybe South America and are therefore looking forward to your early reply.

Yours very truly, Fritz Gegauf Limited.

[fol. 3530] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 35

31-026 MLW:V9

September 7, 1956.

Confidential

Mr. Fritz Gegauf
Bernina Mahmaschinen Fabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

Your letter of September 3rd and mine of September 5th must have crossed in the mails, as I received yours yesterday the 6th. I have accordingly today cabled you as follows:

> "Reyourlet September 3 And My Letter September 5 Which Crossed in Mail Sanford and I Will Be in Germany September 18 Through 25 Stop We Feel Arrangement Can Be Equally Advantageous To Both Stop We Also Believe That if Your New York Attorney Were to Meet With Stanford With Authorization From You to Disclose Contents of Patent Application Considerable Time Would Be Saved and Best Procedures to Take Would Result Stop If You Agree Would Suggest You Cable Your Attorney To Meet With Stanford Early Next Week"

I believe that this cable is quite self-explanatory. Mr. Stanford does feel that if he has had the opportunity before we proceed to Europe this time, to know just what has been the patent action in Washington with respect to both your and our applications he will be in a better position to discuss intelligently affairs of mutual advantage to us, and to have prepared a draft which might be the basis for an agreement concerning our respective applications. I trust that you will understand that this is the only reason for our offering the suggestion that your attorney might discuss with us the status of your application and any proceedings that he has had with the patent office in Washington.

We do believe that it may be possible that we can both

strengthen our positions with respect to the Japanese competition which you mention, and I hope that we can again meet and discuss our respective situations. As I advised in my previous letter Mr. Adamson will be able to judge better when and where we can meet than he can here as [fol. 3531] we do not have any firm itinerary fixed following our arrival at Frankfurt on the 18th.

Very sincerely yours, M. L. Waterman.

[fol. 3532] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 36

September 12, 1956.

Leon M. Strauss, Esq.,
Suite 3104-5,
535 Fifth Avenue,
New York 17, N. Y.

Dear Mr. Strauss:

This will confirm our today's telephone conversation in which I advised you that Singer is licensed under any claims that Mr. Gegauf may obtain in his U.S. patent application No. 358,377 and Bernina is licensed under any claims which Singer may obtain in its Harris patent application Re 516,058.

This will also confirm my statement that Singer is interested in acquiring all of the rights in the Gegauf patent application No. 358,377 and for that reason I wish to have knowledge of the file contents before I leave for Europe on Monday, September 17.

Thanking you for your cooperation in this matter, I am

Yours very truly, J. G. Stanford, Patent Department.

[fol. 3533] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 37

air mail Personal

October 9, 1956.

Dr. S. Lando,
Compagnia Singer per Macchine
da Cucire,
Via Dante 18,
Milan, Italy.

Dear Dr. Lando:

Thank you for your telephone call and for your letter which I received when in Munich.

We conferred with Mr. Gegauf and quite an array of the top management of the Bernina Company relative to the Gegauf United States patent application, and found he placed great importance on the claims which he expected to obtain in the United States.

In fact he wanted a million dollars for the application. After a lengthy conversation he finally intimated that he would be willing to accept two-hundred fifty thousand dollars. As this sum was many times more than we would consider paying for this patent application we ended the negotiations on a friendly basis.

I thought you would like to have this information if the subject should come up in talking with Mr. Vigorelli or his attorney.

Sincerely, ——, ——.

[fol. 3534] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 38

October 22, 1956.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Harris vs. Gegauf Patent Interference #88212

Previous to our recent trip abroad the United States Patent Office declared an interference between our Carl Harris U. S. patent application and that of Fritz Gegauf. We have heard nothing from Gegauf or his U. S. attorneys concerning this interference since our recent trip.

You will recall that under our Singer-Gegauf agreement it is incumbent upon both parties to settle this interference in accordance with the patent laws of the United States. Since we do not wish to initiate any conference with Mr. Leon Strauss, Gegauf's United States attorney, we think it would be well at this time to write directly to Fritz Gegauf for the purpose of stimulating him into action. It may be that Gegauf will advise his United States attorneys to contact us for the purpose of settling the present interference, but on the other hand, Gegauf may extend to us another plan for disposing of his United States patent rights.

[fol. 3535] Enclosed is a draft of a letter which we propose to send to Gegauf. We shall take no further action in this matter until we have heard from you as to whether you approve of this proposed action.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosure—

Draft Letter.

[fol. 3536] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 39

Proposed Letter

Mr. Fritz Gegauf,
Fritz Gegauf A.G.,
Bernina Nähmaschinenfabrik,
Steckborn, Switzerland.

Dear Mr. Gegauf:

As you know, the United States Patent Office has declared an interference between your United States patent application and Singer's patent application relating to ornamental stitch zigzag sewing machines. Such an interference is declared by the Patent Office to determine which of the conflicting applicants is to be awarded priority with respect to the subject matter common to the conflicting applications.

Our agreement provides that this interference is to be settled in accordance with the patent laws of the United States. However, since such interference proceedings are usually time consuming and costly to the parties involved, it would appear that it would be advantageous for us to settle the interference between ourselves rather than to continue the proceeding and rely upon the United States Patent Office finally to award a priority. On the other hand, it is most important that the interference be settled properly so that the prevailing party will ultimately be awarded a valid patent. Therefore, it would now appear to be in order for the attorneys for Singer and Bernina to get together with a view to determining the best manner of [fol. 3537] settling this interference. Perhaps if the United States attorneys for both parties had a conference relative to this matter the exact procedure for terminating the interference could be readily and properly determined. If you agree to this suggestion you may wish to advise your United States attorneys accordingly. We shall take no further action in connection with the present interference until we have heard from you.

It was pleasant to again see beautiful Lake Constance and to be with you and your staff.

Yours very truly, ——; ——.

CC: Waterman.

[fol. 3538] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 40

Received Patent Department, October 24, 1956, Answered—.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

In Replying Please Refer to MLW:V9

October 23, 1956.

J. G. Stanford, Esq.
Elizabethport, New Jersey

Dear Mr. Stanford:

Harris vs. Gegauf Patent Interference No. 88212

I have your letter of October 22nd, with the enclosed draft addressed to Mr. Gegauf reference patent proceedings between Harris & Gegauf applications. I am in full agreement with the suggestion that your proposed letter go forward to Mr. Gegauf just as it is drafted.

Yours very truly, M. L. Waterman, Vice President.

Submitted in Triplicate.

[fol. 3539] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 41

October 24, 1956.

Mr. Fritz Gegauf,
Fritz Gegauf A.G.,
Bernina Nähmaschinenfabrik,
Steckborn, Switzerland.

Dear Mr. Gegauf:

As you know, the United States Patent Office has declared an interference between your United States patent application and Singer's patent application relating to ornamental stitch zigzag sewing machines. Such an interference is declared by the Patent Office to determine which of the conflicting applicants is to be awarded priority with respect to the subject matter common to the conflicting applications.

Our agreement provides that this interference is to be settled in accordance with the patent laws of the United States. However, since such interference proceedings are usually time consuming and costly to the parties involved, it would appear that it would be advantageous for us to settle the interference between ourselves rather than to continue the proceeding and rely upon the United States Patent Office finally to award a priority. On the other hand, it is most important that the interference be settled properly so [fol. 3540] that the prevailing party will ultimately be awarded a valid patent. Therefore, it would now appear to be in order for the attorneys for Singer and Bernina to get together with a view to determining the best manner of settling this interference. Perhaps if the United States attorneys for both parties had a conference relative to this matter the exact procedure for terminating the interference could be readily and properly determined. If you agree to this suggestion you may wish to advise your United States attorneys accordingly. We shall take no further action in connection with the present interference until we have heard from you.

It was pleasant to again see beautiful Lake Constance and to be with you and your staff.

Yours very truly, ——, ——.

CC: Mr. M. L. Waterman.

[fol. 3541] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 42

November 7, 1956.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Harris vs. Gegauf Patent Interference No. 88,212.

Please refer to our prior letter to you of October 22, 1956 in which was enclosed a copy of a letter which we sent to Fritz Gegauf on October 24, 1956. Enclosed is a copy of a letter dated November 3, 1956 which we have received from Mr. Fritz Gegauf.

You will note from Mr. Gegauf's letter that he proposes to have Mr. Leon Strauss, his U.S. patent attorney, get in touch with us for the purpose of settling our above noted interference in an amicable manner. We shall, of course, keep you advised as to any further developments in this matter.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosure—

Letter

[fol. 3542] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 43

September 9, 1957.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Gegauf United States Patent

Enclosed is a proposed letter to Mr. Gegauf. If you are in agreement with us that Gegauf should be approached again on this matter and approve of the letter in its present form, will you please send it on to Mr. Gegauf.

It is our feeling that we have nothing to lose and much to gain by again seeking to obtain the rights in the Gegauf United States patent application.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—

Proposed letter.

In triplicate.

[fol. 3543] Proposed Letter

Mr. Fritz Gegauf,
Fritz Gegauf A.G.,
Bernina Nähmaschinenfabrik,
Steckborn, Switzerland.

Dear Mr. Gegauf:

You will recall that under the terms of our patent agreement the interference between your United States application No. 358,377 and our United States Harris reissue application No. 516,059 has been settled.

We have now been notified by the United States Patent Office that our United States Harris application, which was filed some seven days after the filing of your application, is ready to be issued as a patent. Furthermore, we

anticipate within the near future to have issued to us several other United States patents relating to ornamental stitch sewing machines. We presume that in a short time a United States patent will be granted upon your application.

You are no doubt aware that recently the many Japanese sewing machine manufacturers have brought out a large variety of ornamental stitch machines which would appear to come within the terms of claims which may be awarded in the United States with respect of the above Gegauf and Singer patents. We have reason to believe that all of the very many United States sewing machine importers will [fol. 3544] wish to deal in such Japanese ornamental stitch machines, and that patent suits against each of these importers may be necessary if our respective patents are to be enforced.

Your may agree with us that under the terms of our present agreement neither party is in a position effectively to protect itself through patents in the United States with respect to this threatened competition, particularly when the competing machines are copies after both Bernina and Singer models.

In the event that you may believe that our mutual interests could be best served through further consideration of the present matter I would be pleased to hear from you.

Yours very truly, ——, ——.

[fol. 3545] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 44

Received Patent Department, September 13, 1957,
Answered—

M. L. Waterman, 149 Broadway, New York 6, N. Y.

September 12, 1957.

Mr. Fritz Gegauf
Fritz Gegauf A.G.
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

You will recall the terms of our patent agreement and I know you were advised that as we had agreed, pursuant to this agreement, the interference between your United States application No. 358,377 and our United States Harris reissue application No. 516,059 was settled.

We have now been notified by the United States Patent Office that our United States Harris reissue application is about to be issued as a patent. We presume, therefore, that in a short time a United States patent will be granted upon your application. We also anticipate within the near future that there will be issued to us a number of other United States patents relating to ornamental stitch sewing machines.

When I had the pleasure of meeting you last fall we had some discussion relative to the procedures that might be followed to enforce the patents referred to in the first paragraph of this letter, when issued, against infringing manufacturers who primarily are manufacturers in other countries seeking markets in the United States, and more and more throughout the entire world. These manufacturers are bringing out a large variety of ornamental stitch machines which would appear to come within the terms of claims which may be awarded in the United States with respect of the aforementioned Singer and Gegauf patents. A proper enforcement of these patents may make it necessary to instigate patent suits against each of the importers

in the United States, of whom there will perhaps be many. I think you will agree with me that neither one of us alone can protect himself most effectively. In our discussion we deferred any further action until the applications might have progressed further in the Patent Office.

I am presently planning to make a short trip to Europe and will be there within the next two or three weeks. I had not planned on going to Switzerland but it occurs to me that in view of the recent development of these patent applications, of which I have just been advised, it may be in our mutual interest to resume conversations while I am abroad on this trip. I do not know how long a time may elapse before I will again be overseas. If that will be convenient to you I would appreciate it if you would drop me [fol. 3546] a line. I expect to be in Europe for perhaps the first three weeks in October, in France, Germany, and Italy, and would, of course, endeavor to meet your convenience as to a date when I would be passing through Switzerland. I hope that I may have some reply from you before I leave the United States, but if by chance I have left before your reply arrives, my office will of course cable me letting me know of your wishes.

Yours very truly, M. L. Waterman.

MLW:rk

[fols. 3547-3548] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 45

Mr. M. L. Waterman
149 Broadway
New York 6, N. Y., U. S. A.

Steckborn, September 17th, 1957

Fritz Gegauf
Steckborn/Schweiz

Dear Mr. Waterman,

Thanking you for your letter of September 12th, I am pleased to reply by return of mail that I am looking forward to your visit in October for discussion either in Zurich or Steckborn regarding the mutual enforcement of our US application No. 358,377 and the Harris reissue against infringing products of the foreign manufacturers.

Please advise me as soon as possible by cable or telephone of the exact date when you will be in a position to meet me in Zurich or Steckborn.

Anticipating the pleasure of your visit, I remain with kind regards,

Yours very truly, ———.

[fol. 3549] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 47

September 23, 1957.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Gegauf United States Patent Application No. 358,377 filed May 29, 1953.

Enclosed are the following specimen documents:

Agreement (1) (Deft. Ex. 36)
Agreement (2) (Deft. Ex. 37)
Assignment (Deft. Ex. 38)

The enclosed specimen documents have been prepared for your use in the event that Gegauf should be willing to sell to Singer its above identified United States application which forms the subject of the present license between Singer and Gegauf.

Agreement (1) is suggested for use in the event that Gegauf should be willing to sell us the application for a single lump-sum payment. This agreement has the advantage of providing Singer with an irrevocable title to the subject application and, furthermore, under this agreement it would not be incumbent upon Singer to deal any further with Gegauf in connection with this general subject.

[fol. 3550] The enclosed Agreement (2) is suggested for use in the event that Gegauf should be willing to sell Singer the subject application in consideration for yearly payments which would be payable throughout the lives of any patents which should be issued in connection with the subject application. This agreement is advantageous in that Singer could at any time terminate the agreement and revert back to the original Singer-Gegauf license in which event Singer would be liable to Gegauf for no further yearly payments. In this agreement we have suggested the use of fixed yearly payments rather than royalties based upon the number of Singer machines sold as to obvi-

ate completely the necessity for Singer to make yearly reports to Gegauf as to the quantities of Singer machines manufactured and/or sold under such agreement.

The enclosed assignment could be used in connection with either of the two suggested agreements so as to facilitate the required recording of the sale in the United States Patent Office. Naturally, it would be preferable to record in the Patent Office such a simple assignment as opposed to the recordation of the agreement itself which would include information which is not pertinent for recording purposes.

[fols. 3551-3552] In response to your oral request we have noted below the names and addresses of the law firms that represent us in patent matters in Germany and Switzerland:

Germany: Dr. E. Wiegand, Ballindamm 26, Hamburg 1, Germany.

Switzerland: Messrs. Deriaz, Kirker & Cie., Rue du Mont-Blanc 14, Geneva, Switzerland.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—

Agreements 1 and 2

Assignment

In triplicate

[fol. 3553] In United States District Court

Government's Exhibit 49

M. L. Waterman, c/o

October 17, 1957.

MLW/OS
Mr. Milton C. Lightner,
President,
The Singer Manufacturing Co.,
New York.

Dear Mr. Lightner,

Yesterday Mr. Stanford and I met with the Gegauf people and discussed from mid-morning until early evening the matter of the assignment of the Gegauf basic U.S. patent on its automatic cam-block zigzag machine. Such assignment like others that we have concluded will give Singer complete ownership of the patent (or as it is the case in this instance, patent application) and in return will license Gegauf to build and to sell his machines just as he is now doing.

Unfortunately, although I do not think it will ultimately make any difference, their patent attorney could not be present. I tried to keep the meeting small in numbers and was partially successful, and to treat the subject as one that was not overly important to Singer, but one that should be of equal value to both. In no way will such an agreement restrict sales by either party. Naturally with the language barriers there is always some difficulty in bringing out all points, and it is not other than normal that there may be suspicion on the side of the smaller Company to be allayed. I believe we were successful in doing this, and when their patent attorney is able to study the suggested draft of the agreement which Mr. Stanford prepared, that Gegauf will sign.

The price agreed upon is $40,000. There was considerable discussion in reaching this figure. It comprehends the outright purchase by Singer of their existing patent application with all its divisions. One of the reasons I think agreement may be assured (I can always be wrong) is that,

as agreed yesterday, word has been cabled to their patent agent in New York to let Singer see their patent file with the Patent Office in Washington.

Their patent lawyer and our's are to get together shortly, and as it now stands, to proceed to finalize the terms of the agreement in accordance with our discussion of yesterday. It may be that there will be some questions raised which will have to be clarified through correspondence after my [fol. 3554] return to New York, but I would say that as of now it looks as though agreement—if not already entirely reached—can be arrived at in a reasonably short time. I hope to hear by next Tuesday at Frankfort further particulars concerning the attorney's actions toward the finalization of the agreement.

Yours very sincerely, M. L. Waterman

Copy to Mr. Stanford.

[fol. 3555] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 50

WESTERN UNION

P CDU5 06 140/139 1/50 PD INTL FR—CD FRANKFURTMAIN VIA COMMERCIAL 24 NFT—

PYECOMBE FOR STANFORD—
ELIZABETHPORT (NJER)—

1957 OCT 24 AM 9 18

KIRKER ADVISES OF LATEST THREE POINTS PUT FORWARD FIRST 125000 SINGLE OR 25000 YEARLY LATTER FOR THREE YEARS CERTAIN BUT BELIEVES HALF THESE FIGURES MIGHT BE ACCEPTED SECOND ASKS EXCEPTIONS PFAFF VIGORELLI NECCHI THIRD WISHES DIVESIONAL CLAIM NOT INCLUDED AS STATED INTENDS LICENSING THIS TO SOME—

END 1———

[fol. 3556] WESTERN UNION

P CDU5 06 2/50—

1957 OCT 24 AM 9 18

OTHER INTERESTED EUROPEAN COMPANY STOP ADVISED KIRKER TO PASS WORD TO WILLI WITHOUT MAKING ANY COMMENT ON FIRST TWO THAT THIRD WILL ALMOST SURELY MAKE AGREEMENT IMPOSSIBLE AS WE ALL ALONG WERE DISCUSSING APPLICATION INCLUDING DEVISIONS AND POSSIBILITY OF CHANGES ALSO WILL HAVE TO AWAIT YOUR EXAMINATION OF ORIGINAL AND—

END 2———

[fol. 3557] WESTERN UNION

P CDU5 06 3/39—

1957 OCT 24 AM 9 18

DIVISION STOP ADAIN EMPHASIZED FOR KIRKER TO TELL WILLI THAT APPLICATION AND DIVISION IS IN OUR OPINION LEAK STANDING ALONE STOP WILLI SENDING NECESSARY CABLE TO STRAUSS THIS MORNING STOP APPRECIATE YOUR COMMENTS ON FOREGOING BY IMMEDIATE CABLE—

WATERMAN—

—125000 25000 PFAFF—

[fol. 3558] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 51

Received Patent Department, October 24, 1957. Answered—.

WESTERN UNION

International Communications

To get fast, dependable service, write in "Via W. U. Cables" here

Call Letters FDK INTL Charge to FAX Elizabeth, N. J.

To October 24, 1957
Via W. U.

Mr. M. L. Waterman

Gersinger-Frankfurtmain, Germany.

Value of Gegauf patent to Singer greatly decreases when (other people*) are licensed. However we understand Vigorelli is necessary licensee. We favor yearly plan but with 15,000 yearly. Divisional claim must be included. Suggest Gegauf submit to Singer draft agreement based on our yearly plan.

J. G. Stanford.

* Refers to European's see G. Ex. 50.

[fol. 3559] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 52

Received Patent Department, October 28, 1957, Answered—

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

air mail

Mr. J. G. Stanford,
The Singer Manufacturing Company,
Patent Department,
Elizabethport F.,
New Jersey, U.S.A.

Genève

Rue Du Mont-Blanc 14

Date: 25th October, 1957.

Dear Mr. Stanford,

re: Gegauf's U.S. Patent Application Serial No. 358,377.

Please find below a résumé of our various telephone calls with Mr. Willi, concerning the above case:

Gegauf filed some time ago a divisional application for a part of the subject matter of the above U.S. patent application. The contemplated agreement must relate—according to Mr. Gegauf's point of view—to the basic application only, in its present form. In other words, the divisional application will not be included in the agreement. We replied to Mr. Willi that certainly, such a condition will represent a serious obstacle to reaching an agreement and we pointed out that it will be necessary that you inspect:

1) the original documents filed in connection with the basic application in the U.S.A.

2) the contents of the divisional application

3) the contents of the original application in its present form.

in order that you can decide whether you are still interested in buying Application No. 358,377.

We asked Mr. Willi why Mr. Gegauf wished to keep for himself the original application since, at another time, Mr. Willi said that Mr. Gegauf is not very interested in said invention as regards the U.S.A. Mr. Willi answered that certain European companies are highly interested in the subject matter of the divisional application and that Mr. Gegauf thinks he could sell said divisional application to them. We replied that this represents probably a supplemental difficulty for reaching an agreement with Singer. [fol. 3560] A second point raised by Mr. Gegauf was that he wished to be informed when Singer intends to introduce a legal action against a European company, and that such an action could be introduced only after Mr. Gegauf has given his consent. We pointed out that it would be better to set forth the condition in another form, viz. to include in the agreement the name of the companies which Mr. Gegauf has in mind, and to restrict said condition to such companies. Apparently (but it is not absolutely sure), there are only three companies involved:

Vigorelli
Necchi
Pfaff

The third point of Mr. Gegauf's proposal relates to the payments. He suggests U.S. $125,000 if the payment is made once for all, and U.S. $25,000 per year, as long as Singer keeps the patent, with a minimum duration of the agreement for three years. On this point also, we told Mr. Willi frankly that these sums look extremely high and that we were afraid an agreement could not be reached with such amounts.

From the conversation with Mr. Willi, we were under the impression that probably an agreement might be obtained on the basis of approximately half said sums. Mr. Gegauf considered your proposal of U.S. $40,000 as a minimum, subject to discussion and similarly, he made a counterproposal which is a maximum, also subject to discussion.

The conclusion of our various telephone calls was that Mr. Willi would send a cable (yesterday) to Mr. Gegauf's attorney in the U.S.A., to authorize you to take cognizance

of the original papers of the above application, of the papers of the divisional application and of the papers of the basic application in its present form and that, according to the result of your examination, the discussion with Gegauf would be resumed if you are still interested in acquiring Application No. 358,377.

Since in the meantime we had reported the situation by telephone to Mr. Waterman in Frankfurt, we added that, for Singer, the problem was only to buy the whole thing, i.e. the subject matter of the original basic application in the U.S.A., with all possibilities of divisions and continuations, i.e. including the divisional applicaton filed by Gegauf, and that there was no queston of making two separate agreements and two separate payments.

Awaiting your instructions, we remain,

Very truly yours, Dériaz, Kirker & Cie, G. E. Kirker.

A duplicate of this letter is included for Mr. Waterman.

[fol. 3561] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 53

October 30, 1957.

Mr. G. Kirker,
Deriaz, Kirker & Cie.
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's U.S. Patent Application Serial No. 358,377

Thank you for your letter of October 25, Ref. K/JP, giving us a résumé of your talks with Mr. Willi.

The U.S. Application Serial No. 358,377 of Gegauf has been examined by us and we find that this single application is based upon two Swiss patent applications, namely Serial No. 80,461, May 31, 1952 and Serial No. 91,361, April 22, 1953. There exists another U.S. Gegauf application Ser. No. 435,832 which we have not seen but which we presume

corresponds to a Swiss application of June 18, 1953 and a British patent No. 755,891.

Mr. Strauss, the U.S. Patent Agent of Gegauf, advises us that he has prepared and sent to Mr. Gegauf for execution a third U.S. patent application which claims certain features which the U.S. Patent Office would not allow him to claim in application No. 358,377. This we had not known previ- [fol. 3562] ously. In other words this third unfiled U.S. application has been carved out of U.S. application No. 358,377.

The second U.S. application No. 435,832 we believe relates to the idea of having two zigzag mechanisms, one for fancy stitching and one for the usual zigzag stitching with means for shifting at the will of the operator from one mechanism to the other. If this is the "divisional" application to which Mr. Gegauf refers, and we are now of the opinion that it is, then we are not interested in it and it is not necessary that it be included in the proposed agreement.

We are, however, interested in acquiring ownership to the third unfiled U.S. patent application as it discloses and claims material taken from the original U.S. application No. 358,377, about which we have all along been negotiating. Without having this, the acquisition of the original application would be of only small value to us, if any.

As to the second point, we would if necessary, agree to permit Necchi and Pfaff in addition to Vigorelli to continue to sell their respective machines in the United States without fear of being charged with infringement of the claims which may be allowed as a result of U.S. patent application No. 358,377.

The third point, which relates to the value to be placed upon application No. 358,377, we have to say that we would [fols. 3563-3564] be willing to pay $62,500 for the outright sale of application No. 358,377 to Singer. If you find it necessary, we authorize you to go as high as $75,000 for the outright sale to Singer.

We suggest that you again contact Mr. Willi and make known to him our position in this matter, viz.:

Singer will accept the U.S. patent application Serial No. 358,377 as it now stands, together with any divisional applications which may be carved directly therefrom.

Singer will not ask that Gegauf's U.S. application No. 435,832 be included in the agreement.

Singer will agree to permit Necchi, Pfaff and Vigorelli to continue to sell their respective sewing machines in the United States as far as U.S. Patent application No. 358,377 is concerned.

Singer will pay $62,500 for the outright sale of patent application No. 358,377 by Gegauf to Singer. If necessary, you are authorized to offer $75,000 for the application.

In view of our concessions we hope that you can obtain acceptance of our above proposal.

Yours very truly, The Singer Manufacturing Company, ——, - -, Patent Department.

CC: Mr. M. L. Waterman, Mr. D. P. Kircher

* * * * * * *

[fol. 3565] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 55

air mail

November 7, 1957.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's United States Patent Application Serial No. 358,377.

We have received your letter of November 4, 1957 and we agree with you that the best course to pursue would be for you to interview Messrs. Willi and Gegauf at your earliest opportunity. We trust that as a result of this meeting there will be prepared a written proposal which will be acceptable to both Gegauf and Singer.

We noted that you are ordering printed copies of the Gegauf Swiss patents Nos. 310,788 and 318,123. We believe

that we have correct copies of these two patents but we would be pleased to receive further copies from you. We have always been somewhat mystified over these two patents, particularly since we have what purports to be certified copies of the original Gegauf Swiss patent applications Nos. 80,461 and 91,361 which matured respectively into patents Nos. 310,788 and 318,123. It appears that Swiss patent No. 310,788 discloses only a portion of the invention [fol. 3566] shown in its application No. 80,461. For example, patent No. 310,788 contains only Figs. 1 and 2 which correspond respectively to Figs. 12 and 13 of its application 80,461 which contains Figs. 1-20, inclusive.

The corresponding United States Gegauf application Serial No. 358,377, May 29, 1953, contains Figs. 1-20 of which Figs. 1-18 correspond respectively to Figs. 1-18 of the parent Swiss application No. 80,461. Figs. 19 and 20 of this United States Gegauf application correspond to Figs. 1 and 2 of Swiss Gegauf application No. 91,361 which matured into Swiss patent No. 318,123 containing the same two figures. Figs. 19-21 of the Swiss Gegauf application No. 80,461 are not reproduced in the United States application Serial No. 358,377 or in either o the two above noted Swiss patents. We presume, therefore, that the matter disclosed in the two original Gegauf Swiss applications and not included in the two issued Swiss patents has been abandoned by Gegauf.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman, Mr. D. P. Kircher.

[fol. 3567] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 56

Received Patent Department, November 22, 1957,
Answered—.

air mail

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

18th November, 1957.

Mr. J. G. Stanford,
The Singer Manufacturing Company,
Patent Department,
Elizabethport F.,
New Jersey, USA

Genève

Rue du Mont-Blanc 14

Dear Mr. Stanford,

re: Gegauf's patent application in the U.S.A.
Serial No. 358,377

On Friday 15th, the writer had an interview in Bernina's office, in Zurich, with Mr. Gegauf Senior, Mr. Gegauf Junior, an executive of Bernina and Mr. Willi.

We first tried to clear up the position as regards the subject matter of the various applications referred to in your letter of the 30th October.

Application No. 435,832 is quite independent of Serial No. 358,377 and is neither a division nor a continuation-in-part of the latter. It relates to an entirely different invention outside the field of Serial No. 358,377. This was explained to us by Mr. Willi.

Mr. Strauss suggested to Gegauf to file in the U.S.A. two divisional applications deriving from Serial No. 358,377. Later, it was agreed to prepare a single application which

is the one about to be filed now and which Mr. Strauss has just prepared. It is the application referred to in the last paragraph of page 1 of your letter of the 30th October, 1957. The subject matter of said application—as we were told—does not appear in Swiss patents Nos. 310.788 and 318.123. It was removed from the Swiss applications and no division was filed on this point. It seems that Gegauf realized the importance of this point, only during the prosecution in the U.S.A., i.e. when it was too late for obtaining the protection in Europe on this specific point which is, as we understand, the one you are interested in.

From the beginning of the interview, we saw that the position of Gegauf as regards the contemplated agreement with Singer has been considerably altered since your visit in Zurich and even since our last telephone conversation with Mr. Willi.

[fol. 3568] Mr. Gegauf explained first that he has no objection against the idea of making an agreement with Singer, in order to stop as far as possible Japanese competitors on the U.S. market but he added that such an agreement might be reached under certain conditions only, which he pointed out as follows:

a) The agreement must contain a clear undertaking from Singer, according to which Singer will not manufacture in the U.S.A. a device according to Gegauf's applications to be involved in the agreement.

b) Gegauf would retain the right to grant a licence to a European company if such a company asks for a licence for the invention object of the new application just about to be filed by Mr. Strauss (Mr. Gegauf explained that it is in this new application that the idea you are interested in is lying, and that it is precisely in said idea that it may be some European companies will be interested too. The solution on this point would be that the free licence Singer grants to Bernina includes the right for Bernina to grant a sub-licence to one European company belonging to a list of European companies to be defined).

c) Mr. Gegauf explained also that the sum of $.125.000 he asked for selling his applications (No. 358,377 and the new application to be filed shortly) is cheap and that he could not go substantially lower. He explained further that

if, instead of selling the application to Singer, he were to grant a licence for said inventions, he would get every year many times more than the single payment of $.125.000 he proposes. He added that, around him, everybody was against the proposal of $125.000 and advised him to ask for a much higher sum (we understood that those people around him were his family and some executives of his company). He even said that Mr. Willi told him this sum of $.125.000 was low. Mr. Willi apparently did not react.

Point a) above was the result of an objection from Mr. Gegauf Junior. He told his father during the interview that it may be that Singer is interested in buying the patent applications, not so much for acting against competitors than for avoiding to be involved in an infringement of Bernina's claims. Then Mr. Gegauf Senior put before us condition a).

After this preliminary discussion, Mr. Gegauf Senior asked us what sum we would offer, drawing our attention to the fact that he was not prepared to start bargaining and that he would not agree with a sum nearer to Singer's offer ($.40.000) than to his request ($.125.000).

We were somewhat embarrassed by such a declaration and by the affirmation of Mr. Gegauf according to which Mr. Willi was of the opinion that $.125.000 was not sufficient. In fact, as we wrote before, Mr. Willi told us on the telephone some time ago that it was very likely that Mr. Gegauf would reduce considerably his request for $.125.000, since he had put such a high amount in the discussion for counterbalancing Singer's offer of $.40.000, which he considered [fol. 3569] as a minimum. Thus, $.125.000 was the maximum and a halfway solution seemed to be normally expected.

On Friday last, we realized that the position of Mr. Gegauf has been considerably hardened in the meantime and that he was seriously considering $.40.000 as not worth for a discussion, and $.125.000 more or less as a minimum.

Owing to this change in the position, we felt it impossible to present as a firm offer a sum of $.60.000 or 70.000, since we were not authorized to do so. We were prepared to start a bargaining discussion and Mr. Gegauf Senior warned us he was not willing to start such a discussion. He asked for

a definitive offer (to be accepted or rejected but not discussed). We merely stated that due to such conditions, we saw no possibility to go further for the time being since our instructions from Singer contained a maximum and not a sum to be offered as an amount to be accepted or refused without discussion.

We added that such maximum was nearer to $.40.000 than to $.125.000 and that we would ask for your specific instructions concerning the sum to be offered. Mr. Gegauf looked surprised at our remark that the maximum sum you suggested us to accept as a basis of the agreement was nearer to $.40.000 than to $.125.000 but he did not say that any further interview on the basis of new instructions from you was superfluous.

In other words, it looks as if an agreement might be reached by offering a sum of $.80 to 90.000.

During the discussion, we pointed out that it was not right to compare what Bernina could get for a licence to what Singer would pay for being in a better position for acting against common competitors. We presented the view that what Singer was prepared to pay is to be considered as an insurance premium for bettering its legal position, and not as the equivalent of a licence.

To this remark, Mr. Gegauf replied that we were right but that by giving Singer the possibility to stop the Japanese competitors in the U.S.A., there is a serious drawback for Bernina, viz.: If Japanese competitors can no longer sell their machines in the U.S.A., they will try to sell them in Europe. We answered that if Bernina's patents in America permit Singer to stop the Japanese competitors, the corresponding European patents will permit to act exactly in the same way in Europe. But Mr. Willi and Mr. Gegauf Senior confessed that unfortunately, the position was not so good in Europe:

1) Applications have been filed in a few countries only;
2) the subject matter of the new application to be filed in the U.S.A. is not protected at all in Europe.

[fols. 3570-3576] If you like, we can write to Mr. Willi, making a proposal for say $.75.000 (the maximum authorized by you). If Bernina refuses, then we can explain that we are writing to you for new instructions, in the case you

are prepared to make a higher offer, and then we might offer $.85.000. In such a way, it would be easier to introduce the bargaining which Mr. Gegauf said he will not accept during the interview.

We would not be surprised if you would have to go up to $.100.000.—, due to the present attitude of Mr. Gegauf. The point which struck us most was the difference between what Mr. Willi told us on the telephone and what Mr. Gegauf said of Mr. Willi about the $.125.000. Either Mr. Gegauf attributed to Mr. Willi what the latter did not say, in order to reinforce his own argument, or Mr. Gegauf has in the meantime convinced Mr. Willi that $.125.000 was quite a reasonable sum in the present case.

In any case, it shows that the position of Mr. Gegauf is firm and that he will not make new substantial concessions.

We remain at your disposal and are enclosing herewith a duplicate of the present letter for Mr. Waterman.

Very truly yours, Deriaz, Kirker & Cie, G. E. Kirker.

enclosure: 1 duplicate.

[fol. 3577] In United States District Court

Government's Exhibit 58 (S-10)

Agreement

Agreement dated December 5, 1957, between The Singer Manufacturing Company, hereinafter called "Singer", a Corporation organized and existing under the laws of the State of New Jersey, United States of America, and Fritz Gegauf Aktiengesellschaft, Bernina Naehmaschinenfabrik in Steckborn, Switzerland, hereinafter called "Gegauf" a Corporation organized and existing under the laws of Switzerland, for them and their respective successors.

Whereas, Singer and Gegauf have agreed by agreement dated April 12, 1956, inter alia, that neither party will attack the other in any country of the world on the basis of certain patents and patent applications identified in such prior agreement.

Whereas, Singer and Gegauf agree that their prior

agreement of April 12, 1956 shall continue to the end of its normal term and that the present Agreement will modify the prior agreement of April 12, 1956 only to the extent necessary to carry out the spirit and intention of the present Agreement.

Whereas, Gegauf has as of the day and year written above assigned to Singer, its successors and assigns, for the territory of the United States of America, the entire right, title and interest in and to United States patent application Serial No. 358.377 filed May 29, 1953 and to the inventions disclosed therein and to an application [fol. 3578] divided out of said application Serial No. 358.377 and filed at an unknown date just prior the present agreement, or about to be filed, and in and to any and all United States patents which may be granted therefor and in and to any and all extensions, divisions or reissues of such patents, and Gegauf is desirous of acquiring therefor, in return for the territory of the United States of America, a non-exclusive, non-transferable and royalty-free license to sell sewing machines as disclosed in the said United States patent applications and made in their own factory in Switzerland.

Now, Therefore, in consideration of the premises the parties agree as follows:

(1) In consideration of Gegauf's sale to Singer of the entire right, title and interest in and to United States patent application Serial No. 358.377 and its above mentioned division, to the inventions disclosed therein, and in and to any and all United States patents which may be granted therefor including any and all extensions, divisions or reissues of such patents, Singer will pay to Gegauf the sum of ninety thousand dollars ($90,000) after execution of this agreement and at the latest on the first day of January 1958.

(2) Singer hereby grants unto Gegauf a nonexclusive and royalty-free license to sell in the United States of America sewing machines of the type disclosed in said United States patent applications and made in their own factory in Switzerland.

[fol. 3579] (3) Singer hereby agrees not to introduce, without the consent of Gegauf, legal proceedings on the

basis of the said patents against Pfaff in Germany or Vigorelli in Italy, but only as far as sewing machines manufactured in Pfaffs factory in Kaiserslautern (Germany) or in Vigorelli's factory in Italy are concerned.

(4) Singer hereby agrees not to manufacture and/or sell in the United States of America or elsewhere a construction which would be a slavish copy either of the present construction of the Bernina sewing machine, taken as a whole, which is shown attached to the prior Singer-Gegauf agreement of April 12, 1956, or of the feeler and multiple cam mechanism the said Bernina construction includes.

(5) Gegauf hereby agrees to assist Singer in acquiring United States patents based on patent applications to the extent that it will cause the necessary papers and drawings to be properly executed and to do any acts necessary to be done for the procurement of a valid patent or for the reissue, extension or division of any such patent without charge to Singer but at Singer's expense.

In Witness Whereof the parties have executed this Agreement in duplicate as of the day and year written above.

The Singer Manufacturing Company, By
Fritz Gegauf A.G. Bernina Naehmaschinenfabrik, By

Witness:

Witness:

[fol. 3580] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 59

Assignment

This Assignment made the 5th day of December, 1957. Witnesseth That, Whereas, Fritz Gegauf Aktiengeselischaft, Bernina Näehmashinenfabrik of Steckborn, Switzerland, hereinafter called "Gegauf", a Corporation organized and existing under the laws of Switzerland, is the owner, by virtue of assignment from Fritz Gegauf, of an application for United States patent and the inventions claimed therein,

which application was filed in the United States Patent Office by said Fritz Gegauf on or about May 29, 1953 under Serial No. 358,377 and bearing as its title "Sewing Machine".

Whereas, The Singer Manufacturing Company hereinafter called "Singer", a Corporation organized and existing under the laws of the State of New Jersey, United States of America, is desirous of acquiring, for the territory of the United States of America, the entire right, title and interest in and to said inventions and the said patent application Serial No. 358,377 and in and to any and all United States patents which may be granted therefor.

Now, Therefore, be it known that for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, the receipt of which is hereby acknowledged, the said Gegauf, has sold, assigned, transferred and [fol. 3581] set over, and by these presents does sell, assign, transfer and set over unto Singer, its successors and assigns, for the territory of the United States of America, the entire right, title and interest in and to the above mentioned inventions and patent application, and in and to any and all United States patents which may hereafter be granted therefor, and in and to any and all extensions, divisions, or reissues of said patents, the same to be held and enjoyed by Singer for its own use and the use of its successors and assigns, to the full end of the terms for which said patents may be granted, as fully and entirely as the same would have been held and enjoyed by Gegauf has this assignment and sale not been made.

The Honorable Commissioner of Patents is requested to issue any United States patents relating to application Serial No. 358,377 in accordance with this instrument.

In Witness Whereof, Gegauf has caused this instrument to be signed by its president on the day and year first above written

signed Fritz Gegauf.

CONFEDERATION OF SWITZERLAND, CANTON AND CITY OF ZURICH,

Consulate General of the United States of America, ss:

Subscribed and sworn to before me this fifth day of December 1957.

signed Leonard A. Warren, Vice Consul of the United States of America at Zurich, Switzerland duly commissioned and qualified.

[Seal.]

Service No. 3/27.

Tariff Item No. 49.

Fee Paid: U.S. $2.50.

Local CY. equiv. Sw. Frs. 11.00.

December 5, 1957.

[fol. 3582] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 60

December 6, 1957.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Gegauf United States Patent Application Serial No. 358,377.

We anticipate receiving from Mr. Stanford this afternoon the assignment document which transfers title in the above noted United States Gegauf application from Gegauf to Singer.

As you know, it is imperative for us immediately to exercise control over this application thereby to insure that it will not issue as a patent before we have had an opportunity to place it in a condition which will meet our particular needs.

Consequently, we would like to visit the Patent Office on

Monday next for the purpose of personally recording the assignment document in the Patent Office files and at the same time establishing our control over the application by filing with the Patent Office a proper power of attorney. If you agree with this procedure we would be pleased if you would sign the enclosed Power of Attorney and return it to us for filing. You will note that the enclosed Power of [fols. 3583-3584] Attorney also functions to revoke the present power of attorney which is in Mr. Leon Strauss, Gegauf's U.S. attorney.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—.

Power of Attorney.

[fol. 3585] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 62

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

Received December 13, 1957, Answered—.

December 13, 1957.

D. P. Kircher, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

Enclosed is the original and 4 copies of a memorandum setting forth in narrative form the events that transpired during my recent trip to Switzerland.

If my memory serves me correctly, the facts are set forth in the order of occurrence. The object is to try and give the reader a clear understanding of when and how the offer made by Bernina came about.

Yours very truly, J. E. Stanford.

Enclosures—.

Memorandum and copies.

Copy of enclosure to Mr. A. K. Aurell, Mr. C. F. Bruder, Mr. D. G. Robbins, Mr. R. W. Stewart, Mr. M. L. Waterman.

[fol. 3586] Received December 13, 1957.
Answered—.

Memorandum of

J. G. Stanford's Recent Visit to Switzerland

As planned, I arrived in Geneva on Monday morning, December 2, and telephoned Mr. Kirker, our Swiss patent attorney, who said that he would be free after 2:30 p.m. to discuss the negotiations which he had been conducting with Mr. Fritz Gegauf, President of the Bernina Company.

At 2:30 I visited Mr. Kirker's office and questioned him minutely about everything that had occurred during his recent negotiations with Mr. Gegauf, also as to any side remarks that Mr. Gegauf may have made during the negotiations that Mr. Kirker had with him. After quite a lengthy discussion and a reexamination of our original agreement with the Bernina Company, it was concluded that the best way to handle this matter was to call Mr. Willie, the patent counsel for Bernina, at his office in Zurich and request that he contact Mr. Gegauf saying that I was in Switzerland and that Mr. Kirker and I were quite anxious to have a conference with Mr. Gegauf as soon as possible and suggest Wednesday as the day of the conference. Mr. Kirker called Mr. Willie, gave him this information and requested that he call back and let him know when it would be possible to see Mr. Gegauf on Wednesday. Mr. Kirker had an important meeting in Bern, Switzerland on Tuesday and could not [fol. 3587] change his plans.

On Tuesday word was received from Mr. Willie that Mr. Gegauf was ill and would not be able to see us in Zurich. However, he would agree to see us in Steckborn, which is a small town located some 50 miles from Zurich and the site of the Bernina factory. Although we privately doubted the illness of Mr. Gegauf, there was no alternative but to agree to the arrangements and consequently, Mr. Kirker and I decided to go to Zurich on Wednesday morning and then proceed from Zurich to Steckborn. Mr. Kirker met me at the Geneva railroad station the following morning and we boarded the train for Zurich. We discussed the

situation on the way to Zurich and made plans as to how the various problems would be attacked. Just before we reached Zurich we decided that it might be advantageous if we could induce Mr. Willie to be our luncheon guest and to travel to Steckborn with us. When we arrived in Zurich, we immediately 'phoned Mr. Willie and he, probably anticipating such a request, informed us that he had a client whom he wished to see on his way to Steckborn and that he was leaving his office immediately.

Mr. Kirker and I went from Zurich to Mr. Gegauf's lovely home located on the side of a very high hill overlooking Steckborn and Lake Constance.

Mr. Willie was at Mr. Gegauf's home when Mr. Kirker and I arrived. Although Mr. Gegauf looked quite hale and [fol. 3588] hearty, he explained that he did not wish to go to Zurich because he had been ill and he felt that the cold, inclement weather would be too much for him.

The negotiations were conducted in the living room of Mr. Gegauf's home and Mr. Gegauf suggested that we defer discussing patent matters until his son arrived. He then asked me if I had come directly from the United States and I replied that I had, the reason being that after receiving Mr. Kirker's last letter I had been somewhat alarmed and perplexed at some of the points contained in the letter and I felt that the only solution was to come directly to Switzerland and try to clear up any misunderstanding between Singer and Bernina.

Rather than approach Mr. Gegauf as a humble petitioner with hat in hand, I immediately seized upon a statement made to Mr. Kirker, at a previous conference, to the effect that the Japanese ornamental stitch machines would be sent into Europe if they were stopped from being sent into the United States because Bernina did not have broad patent protection in Europe. I intimated that this was a surprise to us for we expected Bernina to have patents in Italy, Germany and Switzerland which would fully protect Bernina and Singer, and that it was very difficult for us to appreciate that it was only in the United States that they [fol. 3589] expected to obtain any substantial patent protection. I continued to drive this point home and asked if

they knew of any publications, facts or machines of which we had no knowledge. I then asked them such questions as:

Why no action had been taken in Italy in reference to their Italian patent,

What set of circumstances caused them to abandon much of the protection that they should have been able to obtain in Switzerland and

Whether or not their patent application which had been published for opposition in Germany was being opposed by a third party.

I was informed that they knew of no additional reference publication or prior patents which would have any effect upon the patents; that their published application in Germany was being opposed; that they had a divisional application pending in Germany; that in Italy they had notified Caser, a manufacturer of sewing machines, that their ornamental stitch machine was an infringement of the Italian Gegauf patent and that Bernina had received a letter from Caser saying that Caser had stopped manufacturing and selling the infringing machine in Italy.

Finally, after considerable discussion of all these points, I said to Mr. Gegauf that I was somewhat astounded by the statement he made to Mr. Kirker to the effect that Gegauf [fol. 3590] could not assign the United States patent to Singer unless Singer agreed not to manufacture a machine which came within the terms of this United States patent or its division. I called attention to the fact that Singer would hardly be willing to pay an enormous sum for a patent application and at the same time surrender patent rights which we already had. The copy of the original agreement with Gegauf was then introduced into the conversation and we showed Mr. Willie and Mr. Gegauf the clauses which gave Singer the full right to manufacture and sell under enumerated United States and foreign patents. Mr. Gegauf then protested that these clauses applied only to the Gegauf United States application which was pending at that time and that we had no rights under his divisional application. His attention was called to the fact that the divisional application in the United States was not new, but that it was taken completely from the original Gegauf patent applica-

tion. As an analogy we suggested that if one had a piece of pie and divided it up into a number of pieces, it was still the same pie. Therefore, the divisional application which he was filing was nothing more than part of the original application and consequently, our agreement with him gave us full rights under any United States and foreign patents relating to such original application.

[fol. 3591] At this point in the discussion, Mr. Gegauf's son, accompanied by a member of the Board of Directors of Bernina, came into the living room and entered into the discussion. Young Mr. Gegauf became quite excited over the fact that Mr. Willie agreed with us that Singer did have full rights under both the original and divisional patent applications and then argued that the agreement was signed at the time an interference was pending between patent applications of Singer and Gegauf and thus, the agreement only related to the disputed claims of the interference and not to Gegauf's United States patent application as a whole. He said, further, that we had no rights under any foreign divisional applications that Gegauf had filed. Fortunately, at this point Mr. Willie entered into the discussion and finally convinced young Mr. Gegauf that he was in error and that Singer did have full rights.

Young Mr. Gegauf further argued that if the United States patent were assigned to Singer and if Singer were successful in stopping certain types of Japanese ornamental stitch machines from being shipped into the United States, it would merely divert such machines into Europe and as a consequence Bernina would have still more com-

[fol. 3592] petition in Europe, and as a result of the increase in competition in Europe Bernina would have a substantial loss of business. To this argument I took the position that the United States was really the first line of defense and that if the Japanese were permitted to flood the United States market with ornamental stitch machines of the Bernina or Class 401 type they would become so strong and production would be so great that they would enter the European market in a stronger position. I further stated that protection was to be obtained in some of the foreign countries by Gegauf and it seemed that a greater risk would be involved if they did not permit Singer to try

and reduce the importation of the multiple-cam machines into the United States.

Mr. Gegauf's daughter put in her appearance shortly before this time and she and her father finally persuaded her brother that possibly it would be better to give Singer an opportunity to try to cut down the importation of multiple-cam machines into the United States.

At this point Mr. Gegauf asked that there be put into any agreement that may be reached with Singer a provision that Singer would assist Gegauf-Bernina in all possible ways in the event that Gegauf should decide to take action under his patents against competitors in Europe. After considerable discussion, Mr. Gegauf was finally convinced [fol. 3593] that it would be unwise for the agreement to contain a provision of this kind.

The matter of licensing other European manufacturers was then taken up and after discussion, it was concluded that Singer would not bring any action under the assigned Gegauf United States patent application, against Vigorelli for machines sold in the United States and made by Vigorelli in Italy, or against Pfaff for machines sold in the United States and made at their factory at Kaiserlauten, without first obtaining the consent of Gegauf. In this way we avoided giving a license to a third party under the United States patents which we expect to obtain. It was also agreed that the Bernina Company was to receive a nontransferable, royalty-free license to sell their Swiss-made multiple-cam machines in the United States.

After all of these preliminary details were settled, the matter of price came up and Mr. Gegauf insisted that Singer make an offer. After considerable thought, I decided to offer 300,000 Swiss francs, which is the equivalent of about $75,000 but has a larger sound, for an assignment of the original and divisional United States patent applications. Mr. Gegauf then stated that this was not close enough to his original figure of $125,000. It seemed, however, that since he had requested another offer from Singer, [fol. 3594] he would be willing to reduce the original figure. Considerable discussion ensued and finally I was able to bring him down to an offer of 400,000 Swiss francs. This left approximately $25,000 between the figure offered by Singer and the figure which Gegauf was willing to accept.

Throughout the entire negotiations I had tried to drive home the point that the Brother Pacesetter machine was a free-arm zigzag machine and that Singer did not have a comparable free-arm machine to sell. Consequently, the Brother Japanese machine was in direct competition with Bernina and not with Singer. During the negotiations I continued to point out various ways that the competition in free-arm machines might be reduced as well as the competition in flat-bed machines and as a consequence Gegauf would be in a position to profit from this fact more than Singer.

Suddenly, Mr. Gegauf put forward the proposition that if Singer would agree to take 10,000 of his free-arm machines a year for the next five years and sell them in the Singer shops in the United States; that he would give the United States patent to us with no charge. I replied that I doubted Singer would be willing to sell someone else's machines in its shops and that Singer certainly would not consider it if it were not an exclusive. Mr. Gegauf's [fol. 3595] daughter, who speaks very good English, said they were thinking of changing their agents in the United States and they were sure they could make this an exclusive proposition. Gegauf interposed with a statement that he felt he could sell the machine to Singer more cheaply than Singer could make them. I presumed he was referring to making them in the United States. I told them that I felt Singer might be interested in their proposition, but that Singer would not sell the machine with the name "Bernina" on it and in the same color as the "Bernina" machines. However, I did not press this point any further but said that I would relay this information to the executives in New York and that I felt sure they would contact Mr. Gegauf and let him know their decision in this matter.

I then pointed out that I was there only to discuss patents and patent questions and that I preferred to go on with the patent negotiations, rather than enter into any commercial discussions.

I then asked Mr. Gegauf if Singer subsequently agreed to purchase 10,000 machines per year if he would refund to us the money paid for the patent. He agreed that if Singer and Gegauf-Bernina could reach a satisfactory marketing

agreement, then the purchase price of the United States patent applications would be returned to Singer.

[fol. 3596] Negotiations as to price continued and finally I made an offer of $90,000, which Mr. Gegauf accepted: It was decided that the agreement would be drawn up early the next morning and would be taken to Mr. Willie's office in Zurich and typed by his secretary. Mr. Gegauf said that he would be in Zurich the next morning at 11 o'clock to sign the agreement and execute, before the American Consul, the assignment paper of the original patent application.

Mr. Gegauf and his family then invited us to a chicken dinner at an inn on Lake Constance. I must say that the chicken was excellent and that the relationship of all the parties was equally as good. After dinner and before I departed for Zurich, I took occasion to say to Mr. Gegauf that in the event Singer wished to negotiate further with him in reference to the selling of Bernina-made machines in the United States, he should condition himself to the fact that Singer would not sell the machines under the name "Bernina". Mr. Gegauf did not say yes or no and, consequently, his mind apparently is not fixed and this is a point which can be the subject of negotiation.

Mr. Kirker and I then returned to Zurich and early the next morning drafted the proposed agreement after which I obtained a check from the Swiss Bank for the sum of $90,000. There was no difficulty whatsoever in obtaining this check with the aid of the letters of credit which [fol. 3597] Mr. Morton had provided. We met Mr. Gegauf in his office in Zurich, the agreement was signed, and Mr. Gegauf then went to the American Consul's office and executed the assignment of the United States patent application to Singer. After the signing of the agreement, Gegauf said to me that although the night before it had been intimated that Singer would be given an exclusive right to sell Bernina machines in the United States, on further reflection he felt that he would like to retain one or two of his present agents, particularly the one in Kansas City. I replied that I could not speak for the Company on any of these points but that I felt sure they would contact him at an early date.

He then took occasion to say that the Consolidated Sewing Machine Company of New York had been trying to get an exclusive franchise in the United States for the Bernina machine.

The following are some facts which may be interesting or of use at some future date:

Mr. Gegauf is 64 years old and a very pleasant, quiet man. He is more inclined to listen than to talk, and although he contends that he does not understand English very well it is my observation that he understands and is capable of using the English language to a much greater [fol. 3598] extent than he is willing to admit. He follows the old British rule of "use the mother tongue whenever possible".

The total production of Bernina machines is between 70 to 80 thousand per year. Only about 4500 straight stitching machines are made per year and Mr. Gegauf said that he would prefer not to make any, but that his distributors required a few straight stitching machines. He explained that the low production of straight stitching machines resulted in a very high cost and no profit. Mr. Gegauf stated that the major efforts of his production and sales departments were devoted to multiple-cam ornamental zig-zag machines and that he sold more of the free-arm machines than the flat-bed machines.

Mr. Gegauf's daughter informed me that Bernina had recently opened a very nice shop in Munich and that many wives of the American service men came into their shop [fol. 3599] to inquire about the Bernina ornamental zigzag stitch machine. She stated that this was brought about by an article in the "Consumer Reports" published in the United States. I am informed that Bernina has used large reproductions of this report in their shops in Europe.

Bernina does not wish to increase its production. Mr. Gegauf said that they are getting the maximum number of machines off their present tools and that he does not wish to expand any further. He expressed the opinion that small sewing machine companies get into difficulty by overexpansion and permitting their inventories to become too great.

Mr. Lightner requested that I determine, if possible,

whether or not the Bernina Company might be for sale. The presence of Mr. Gegauf's 12 year old grandson permitted me to inquire of Mr. Gegauf as to whether the boy was going to become a sewing machine man. Mr. Gegauf replied that he hoped so, that there was a younger generation in being and that he would like to retain the Bernina Company for them. He said that he had been approached by others [fol. 3600] to sell the Bernina Company but he preferred to retain the Company for his family. I concluded from Mr. Gegauf's statements that the Bernina Company is not for sale. By this I mean to imply only that it is not on the bargain counter. Aside from the idle inquiry, I made no further remarks concerning this matter.

I am sure that Mr. Gegauf is expecting to hear from Singer at an early date as to whether Singer is interested in selling the free arm Swiss-made machine in the United States.

Copies sent to Mr. A.K. Aurell, Mr. C.F. Bruder, Mr. D.G. Robbins, Mr. R.W. Stewart, MLW.

[fol. 3601] In United States District Court

Governments Exhibit 63

December 18, 1957.

Dear Mr. Gegauf:

Recalling the delightful chicken dinner that I had with you and the members of your family near Lake Constance and particularly the "Bernina Coupe" which you suggested that I have for dessert, I am writing this letter instead of dispatching to you the usual Christmas card.

I arrived home safely with the box of chocolate Bernina sewing machines intact and, so far, I have given only two of the chocolate machines to my wife. This is causing some domestic difficulties because she likes your Swiss chocolate candies very much and made the remark that: "If the Bernina sewing machine is as good as the candy, it must be an excellent machine."

The return trip to the United States was a bit rough as

far as the fog and the weather were concerned. However, there was a bright spot in the sky when we landed at Shannon Airport in Ireland and were permitted to purchase, tax free and at a ridiculously low price, five bottles of Kirschwasser, or the like. This was particularly helpful at this season of the year.

I have told the executives in New York of your proposition concerning the marketing of free-arm machines in the United States. You will probably be hearing from New York shortly after the holiday season.

[fol. 3602] It is a pleasure to do business with you and I am happy that our recent business dealings reached such an amicable conclusion. I hope the result will be profitable to both parties.

Please extend to the members of your family and to those members of your staff whom I have had the pleasures of meeting, the Seasons Greeting and my best wishes for joyous holidays.

Cordially yours, ——, ——.

[fol. 3603] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 64

July 17, 1958.

M. L. Waterman, Esq., Vice President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Enclosed is a draft of a proposed letter to Mr. Gegauf. I have merely set forth the fact that we have brought suit under the patent and contemplate bringing other suits. The letter has been left incomplete because I thought perhaps you would like to add something of a personal nature.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—.

Copy of proposed letter.

[fol. 3604] Proposed Letter

F. Gegauf, Esq.,
Fritz Gegauf Aktiengesellschaft,
Bernina Nahmaschinenfabrik,
Steckborn, Switzerland.

Dear Mr. Gegauf:

Enclosed is a copy of patent No. 2,832,302 which issued as a result of your United States application No. 358,377. A division of this application is still pending in the United States Patent Office.

I thought you would like to know that we have started suit against Brother International Corporation for infringement of patent No. 2,832,302 and two other patents owned by Singer. We are contemplating, within the next few days, bringing suits for infringement of our United States patents against other sellers of Multiple Cam Zigzag machines in which one of the cams may be selected by the operator to control the design pattern.

[fol. 3605] In United States District Court

Government's Exhibit 65

Received Patent Department, July 22, 1958, Answered—.

M. L. Waterman
149 Broadway
New York 6, N. Y.

July 21, 1958.

F. Gegauf, Esq.
Fritz Gegauf Aktiengesellschaft
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

Enclosed is a copy of Patent No. 2,832,302, which issued as a result of your United States Application No. 358,377. A division of this Application is still pending in the United States Patent Office..

I thought you would like to know that we have started suit against Brother International Corporation for infringement of Patent No. 2,832,302 and two other patents owned by Singer. We are contemplating, within the next few days, bringing suits for infringement of our United States patents against other sellers of Multiple Cam Zigzag Machines in which one of the cams may be selected by the operator to control the design pattern.

Very truly yours, M. L. Waterman.

Enclosure

cc: Mr. J. G. Stanford (not noted on original).

[fol. 3606] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 66

8/4/58.

Referred to Mr. J. G. Stanford.

This is the letter about which I telephoned you this morning. Will await your comments concerning the question raised by Mr. Heimann.

M. L. Waterman

[fol. 3607] Fritz Gegauf

Received Patent Department, August 4, 1958, Answered —.

Steckborn/Schweiz
Inhaber Der

Bernina Nahmaschinenfabrik

July 25, 1958.

Mr. M. L. Waterman
149, Broadway
New York 6, N.Y.

Dear Mr. Waterman,

I thank you very much for your letter of 21st inst., enclosing a copy of the U.S.A. Patent No. 2,832,302, which was granted against our Application No. 358,377.

I note with very much interest that you have started suit against Brother International Corporation for infringement of said patent and some of Singer and that you will shortly suit some further companies for infringement of your U.S.A. Patents regarding the construction of multiple cams. I feel quite sure that you will be successful.

I seize this opportunity to advise you of the following matter. Many European sewing machine factories begin to be disquiet on account of the increasing sale of Japanese sewing machines.

From the American import statistics it is seen with anxiety that during 1958 the Japanese succeeded in increasing again the export of their machines compared with 1957, while the export of European machines to the U.S.A. is going back.

Even if in Europe the Japanese competition is presently not alarming, as regards quantity of machines, the manufacturers of sewing machines, especially in Germany, make efforts to stop the import of Japanese sewing machines.

Recently I have had the opportunity to discuss the matter of Japanese imports in Europe with several directors of the Pfaff Company and also with directors of other German sewing machine factories. I hardly believe that in Germany and in other countries measures will be taken

on the part of the state in order to prevent substantially the import of Japanese machines.

I told to these gentlemen that according to my opinion it will be very difficult to do anything against the Japanese, as long as the European sewing machine manufacturers undertake everything to open the doors to the Japanes, especially as regards the supplies of automatic zigzag sewing machines similar to proved European constructions. Several European, especially German manufacturers, try with all means to bring to fall the patent [fol. 3608] applications of my company. Above all I mean the Bernina Automatic. I hope to be able to induce those firms, which made interference against our application, to withdraw their interference under certain conditions.

During a discussion with Mr. Heimann of the Pfaff Company he asked me whether I believe that also the Singer Company would be prepared to help that a further gaining ground of the Japanese machines on the European market be prevented in respect of patent rights. As it seems people know already that a patent arrangement was reached between the Singer Company and the Bernina and that friendly connections are existing between our Companies, I was asked to submit you the aforesaid question. I did not mention, of course, that you intend to proceed against the Japanese on the basis of your patents and ours, what happened already in the meantime. According to my opinion, the Japanese can be hit only if we succeed in preventing their manufacture of proved and well accepted constructions for reasons of patent rights. You are on the right way with your suit.

I should be very glad to discuss this matter when you will come again to Europe and to know your opinion. Owing to the proved Bernina construction, my company is still fully occupied notwithstanding the general weakness of the market.

I remain, dear Mr. Waterman, with very kind regards,

Sincerely yours, F. Gegauf.

[fol. 3609] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 67

January 28, 1958.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

We are enclosing a ribbon copy and two carbon copies of our report of the activities of this Department for the year 1957.

As requested, we have condensed the report and we trust that you will find it satisfactory in its present form.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—

Report (in triplicate).

[fol. 3610] Vice President's Department

Summary of Patent Department Report for The Year 1957

Probably the most important single accomplishment of the past year was the agreement reached with Messerschmitt A. G. of Germany. This agreement permitted Singer to continue to sell the Class 319 machine in all of the countries of the world without fear of being charged with patent infringement by Messerschmitt, released us of all possible charges which may have been made for past infringement of its patents, and made possible future marketing of the Class 320 machine. In addition, the Messerschmitt Company assigned to Singer its pending United States patent application relating to multiple cam machines and this application gives Singer a foothold in the United States in the field of multiple cam machines in which a stack of cams is used for controlling the lateral vibrations of the needle bar and a separate stack of cams is used to

control the feeding mechanism. In return Singer agreed that Messerschmitt could continue to sell its multiple cam machine (which is similar to our Class 319 machine) in the United States.

Steps were taken to strengthen Singer's patent position in the United States for multiple cam zigzag stitching machines by concluding an agreement with Fritz Gegauf A. G. of Switzerland, makers of the well-known Bernina sewing machine, whereby a basic United States patent application relating to such machines was assigned to Singer. Patents issuing on this application grouped with other Company patents should put Singer in a better position in any attempt to prevent others from importing into the United States multiple cam machines of the Singer Class 401 type. Previously we had secured rights under the corresponding foreign Gegauf patents which enable us to [fol. 3611] market our Class 401 machines in those countries without fear of being charged with infringement of the Gegauf patents.

[fol. 3612] The growth of the Japanese and European sewing machine industries continues to increase the patent activities of our competitors in these areas. All of these activities have been closely followed and, opposition proceedings have been brought against those competitors' patent applications which we feel might interfere with the manufacture or adoption of Singer sewing machines. In a number of instances, undertakings have been obtained from our competitors in which they agree not to enforce their patent rights against Singer.

[fol. 3613] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 68

Hotel Metropole
Brussells

Thursday

Dear Chet:—

Some disconcerting news. Belgium Patent 543,073—filed by Willy Messerschmitt & Kurt Brandt (under Convention 25 Nov. 1954 & 13 July 1955 filed 24 Nov. 1955 in Belgium. We search the files of the Belgium patent office yesterday and came up with this. Drawing show multiple cams for controlling ZZ and another set on same shaft for controlling feed. Claims both. I guess that they filed in Germany on Nov. 25, 1954, for the multiple cam ZZ and filed a patent for addition July 13, 1955 for cam feed. At any rate they seem to be four days ahead of Johnson and 14 days ahead of Perla 319 m/c.—tough luck—at least we appear to be ahead in U.S. We see the Messerschmitt people (maybe Willy) in Frankfort next week. So far have been unable to find out what the 1st German patent application covers. Spain is the only country I know of that does not permit double priority dates.

With this knowledge what should we do in U.S.? Both France & Switzerland say they must have cylinder bed m/c to compete; does this make Messr.— a good buy?

[fol. 3614] Have arranged to get Belgium O G—information sent to us was wrong. Went through Gazette for last 18 months, only 5 sewing m/c patents, two were Singers. Just happened that Messerschmitt filed here.

Leave for Germany in a few minutes. Belgium full of Japanese machines, all kinds. Regards to all. JGS

[fol. 3615] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 69

The Singer Manufacturing Company
Patent Department
Elizabethport, F, New Jersey

January 19, 1956.

Air Mail

Leo Adamson, Esq.,
Frankfurt.

Dear Mr. Adamson:

Multiple-Cam Ornamental Stitch Sewing Machine.

Thank you for your letter of January 11 on this subject.

We have noted that Dr. Wiegand reports the "legal situation is extraordinarily complicated" and that it may be more complicated than can be judged at the moment.

We are all well aware of how serious and complicated the patent situation is in Germany and most of the important industrial countries of the world. In Germany we have an opportunity to oppose the claims of applications before the application is finally issued. This is an advantage that we do not have in many countries.

We are making every effort to stay on top of this situation and if Dr. Wiegand has any suggestions as to how we can better protect ourselves or improve our position we would be happy to receive them.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

[fol. 3616] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 70

March 15, 1956.

L. Adamson, Esq.,
Singer Nähmaschinen Akt.-Ges.,
Gutleutstrasse, 42,
16 Frankfurt a/Main 1,
Germany.

Dear Mr. Adamson:

As you know it is most important for us to have the earliest information possible concerning [the filing date] of the patent application of Messerschmitt for their multiple-cam machine. We have searched the United States assignment records, the British patent applications filed, the Italian patent records and have kept a sharp lookout over possible issue or publication in all foreign countries. To date, we have found nothing that has been of help to us.

It may be that some information can be picked up from the Patent Office in Belgium. We would appreciate it if you would contact Dr. Wiegand and ask him to please obtain any and all information possible concerning the possible filing by Messerschmitt of patent applications directed to sewing machines having multiple cams, any one of which may be selected to control the vibration of the needle-bar.

This has been made more important by a recent communication from the German Patent Examiner, in which he stated that action on our Perla application S 46,580 (319 machine) is being held in abeyance because of a prior [fol. 3617] filed German application which he has before him.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fol. 3618] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 71

Karlsruhe

Friday Morning.

Dear Chet:—

I have given much thought to the Messerschmitt situation. It seems to me that we should push the U.S. Perla case to the limit. If you agree "let er go."

As far as I can see Messerschmitt's filing date in Germany is Nov. 25, 1954. I feel quite sure of this, so we can establish our superiority in the U.S. While M/S said they were willing to be friendly & negotiate, it is my impression that they will do so only when they have a gun in their back. Anyway, I'm not so sure we need them or that we will wish to negotiate, maybe we can push them out of the sewing machine game. They admit they have no time to give to it, but want to hang on. Apparently Bell has quite a contract with them.

In view of the prior Art to Messerschmitt app

Bernina—(especially italian)
Harris
Vigorelli & publication in U.S.
Brustch
etc.

just what can Messerschmitt get in the way of patent protection which will stop Singer.—Their attorney knows [fols. 3619-3621] nothing about sewing machines or sewing machine patents so he may not do so well. Does the Belgium patent cover 319—my impression was no—but didn't have time to study the case. Italian patent speck & claims should be in P.D. before I get there. Will check British in Glasgow on Monday—& will write Bendel in Paris to check sub-rosa in France for Messerschmitt application. Messr— may have filed in only a very few countries.

Had letter from Gegauf yesterday but he didn't say anything about assigning his U.S. application to us.

Noticed from a memo—that L. L. Pettit sent Waterman that Schmitt gave up on needle-looper——

Frankfort tonight—London Sunday—Glasgow—Monday—London Tuesday—Southampton Wednesday and then home. It's been a nice trip and quite fruitful.

Regards to all, JGS.

P.S. Mr. Lightner will be in London—Mr. Waterman leaves tomorrow morning for London to talk with Mr. Lightner—understand we may all be in Clydebank together.

JGS

[fol. 3622] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 72

April 30, 1956, Patent Department Correspondence Dept.

Cablegram

Please send the following cablegram:

J. G. Stanford
Gersinger-Frankfurtmain
Germany

Messerschmitt might be stopped in Germany and other countries by proper claims in applications corresponding to Vigorelli Italian patent 507862 filed September 29, 1953. This patent is first to show and claim two cams tracked by follower means during single stitching cycle.

Patent Department, The Singer Manufacturing Company, ——, ——, Patent Department.

[fol. 3623] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 73

April 30, 1956, Patent Department, Correspondence Dept.

Cablegram

Please send the following cablegram:

J. G. Stanford
Gersinger-Frankfurtmain
Germany

Purchase of Messerschmitt for patent reasons only not justified if German applications of Gegauf and Vigorelli contain claims dominating Messerschmitt.

Figures nine and seventeen of Gegauf Italian patent 501,172 and all figures of Italian Vigorelli patent 507,862 would support different coexisting claims dominating Messerschmitt.

Patent Department, The Singer Manufacturing Company, ——, ——, Patent Department.

[fol. 3624] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 74

Received Patent Department, May 28, 1956, Answered—.

May 25th, 1956.

L. Adamson
Frankfurt Am Main
Sutleutstrasse 42-44
Singer-Maus

M. L. Waterman, Esq.
Vice President
Singer Building
149 Broadway,
New York 6, N. Y.

Dear Mr. Waterman,

Multiple-Cam Ornamental Stitch Sewing Machine—
Messerschmitt

We had today a visit of Mr. Busselmeier, the patent agent of the Messerschmitt A.G. of Augsburg and the chief designer of that company, Mr. Brandt, who had come to inspect the Cl. 319 Machine you have sent us for this purpose.

After only a short inspection both gentlemen said that the design of the automatic unit of this machine is the same in principle as theirs. The rocker carrying the levers and the location of the levers on the rocker are identical. The locking of the levers is considered to be the same too. There is an immaterial difference in so far as the rocker is journalled on the left with the Singer machine whereas it is journalled on the right with the Messerschmitt design.

The design of the Messerschmitt automatic unit is protected by a German patent application which is several years old but has not been published yet. It is alleged that the main claim of it covers the Singer design.

Asked for the date or year of the application Mr. Busselmeier said this would have to be left for the further negotiations as Mr. Stanford had not given yet the dates of

the pending Singer patent applications which he had said to cover the Messerschmitt design.

As a result of today's inspection of the Cl. 319 Machine Mr. Busselmeier believes it necessary that Mr. Stanford and he meet again as soon as possible and that both put those patent applications on the table which they believe to be infringed by the other party's design.

Mr. Busselmeier thinks that an amicable settlement will be in the interest both of the Singer and the Messerschmitt companies because quite a number of other competitors would profit by a dispute which would partly destroy or narrow the claims of either the Singer or Messerschmitt patents. He has mentioned, however, that he cannot say anything definite to this effect at the moment because he will have to report to the Messerschmitt Company first and because Mr. Messerschmitt himself generally attends to such technical matters. Mr. Busselmeiser hopes, however, [fol. 3625] to be able to let us have news in writing in the course of next week.

As regards a new meeting with Mr. Stanford Mr. Busselmeier said that he would be prepared to go to the States for such conference but that he could on the other hand not expect the Messerschmitt A.G. to pay his expenses seeing that it is a question of infringement of a Messerschmitt patent.

I shall write you again as soon as we receive a communication from the Messerschmitt A.G. or Mr. Busselmeier, but I want to let you have this preliminary report so you are posted on the results of the inspection of the Cl. 319 Machine.

Yours very truly, [Copy Illegible].

Copy to Mr. J. G. Stanford, E'port.

P.S. Please let me know, whether you wish the Cl. 319 Machine to be returned to New York.

[fols. 3626-3628] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 75

Received Patent Department, June 18, 1956, Answered—.

Compagnia Singer per Macchine da Cucire
Società Italiana per Azioni
Sede Milano-Stabilimenti Monza
Capitale Sociale Lit. 1.800.000.000

Milano 12th June, 1956.

SL.og (II')
J. G. Stanford Esq.,
Patent Department,
Elizabethport F, N. J.

Dear Sir,

In accordance with your request, we have contacted our Patent Advisers and have carefully discussed with them the various points contained in your letter of May 22nd. The conclusions have been summarized in the attached report drawn up by Ing. Faraggiana.

We have little to add to this report. A possibility of Messerschmitt to start a legal case in Italy in defence of his patent exists and we hope that the report will help you to decide whether or not it would be advisable to include Messerschmitt amongst the signers of the non-aggression pact.

According to our Advisers, a legal judgement is likely to prove more favourable to us; on the other hand, they believe that in the event of our losing the case, consequences would certainly be much heavier for us than for the other party.

Needless to say that we are at your disposal for any further development of the matter.

Yours very truly, Compagnia Singer, per
Macchine da Cucire, ——.

Encl.

cc: Mr. M. L. Waterman, N. Y.

[fol. 3629] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 77

July 16, 1956.

L. Adamson, Esq.,
Singer Nahmaschinen Akt.-Ges.,
Gutleutstrasse, 42,
16 Frankfurt a/Main 1,
Germany.

Dear Mr. Adamson:

Multiple-Cam Ornamental Stitch Sewing Machine—Messerschmitt A.G.

Thank you for your letter of July 5th on this subject.

We now have good reason to believe that Messerschmitt has received, or will within the next several weeks receive, word from its United States attorney that its United States patent application relating to its automatic multiple-cam zigzag sewing machine interferes with an application owned by an unnamed adversary. Messerschmitt no doubt will realize its opponent is Singer. We further believe that Messerschmitt will be given 30 days to indicate to the United States Patent Office whether it wishes to enter or withdraw from such an interference. We presume that it will enter the interference. When such an interference is formally declared by the United States Patent Office, each party will be advised as to the identity of the other.

In view of this situation, I think it would be well if you would answer Mr. Busselmeier's letter which you quoted in your letter of June 15, 1956. Mr. Busselmeier should not [fol. 3630] be advised of the pending interference, for as a matter of tactics, I believe that it would be advantageous to have him advise you relative to this subject.

I would suggest that you advise Mr. Busselmeier that I can see no reason why an amicable settlement of this entire matter cannot be reached. Further, that you have learned that I expect to be in Europe again sometime in the latter part of August and the Messerschmitt-Singer situation can be discussed at that time. Although we do not wish to display to Mr. Busselmeier a sense of urgency or eager-

ness, we would recommend that he be asked to suggest a definite date and place for a meeting with me if he is interested. Upon learning of the present conflict in the United States Patent Office we hope that Mr. Busselmeier will be stimulated into making further inquiries of you as to our intentions.

Yours very truly, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fol. 3631] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 78

November 2, 1956.

M. C. Lightner, Esq.
Tokyo, Japan.

Dear Mr. Lightner:

Mr. Stanford and I had been waiting anxiously to hear from the attorneys for the Messerschmitt Company, and in fact on Monday of this week we discussed what our next action should be if we did not hear very soon. However, the day following, Mr. Stanford received a call from the Washington attorneys of Messerschmitt advising that they would like to talk with us, and on Thursday a representative came to New York and went over the situation with us. We learned that they had already advised Bell that it was in its interest that Messerschmitt should sign the patent agreement with us and that, as a result, Bell had sent a letter to Messerschmitt indicating its approval of this action.

The Washington attorney was in agreement entirely with the proposed draft of agreement between the two companies which we had left with Messerschmitt when in Munich and, in view of all this, I sent you a cable last night which read as follows:

"Messerschmitt's Washington patent representative today agreed completely to our proposed agreement affecting 319 and convinced Bell of benefit to it of

advising Messerschmitt to sign the agreement following which a letter went from Bell to Messerschmitt signifying approval stop A director of Messerschmitt will be coming to States in about a month when we anticipate agreement will be signed stop Believe question of purchase of their sewing machine business will also be raised although not mentioned today."

I think the cable is self-explanatory. As concerns the last two sentences, we will examine the Messerschmitt cylinder arm machine more carefully now. I believe there is not much we would have to do to it to make a pretty good sewing machine out of it, if we cared to do so. However, we will study that aspect of the problem and be prepared for the visit of the Messerschmitt director, who by the way is a stepson of Mr. Messerschmitt himself. We hope that this will settle all of our patent problems as concerns all of our [fols. 3632-3644] zigzag machines where there appeared to be some danger. I think we are really very fortunate.

• • • • • • •

Very sincerely, ——, ——.

Enclosures

[fol. 3645] In United States District Court

Government's Exhibit 84

Received December 12, 1956, Answered —.

Mr. D. P. Kircher

December 11, 1956.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Singer Class 319 and Class 401 Multiple-Cam Ornamental Stitch Sewing Machines.

This is to bring up to date the infringement status throughout the principal countries of the world of the Singer Class 319 and Class 401 machines.

Class 401 Machine

The Class 401 machine could infringe the claims contained in certain patents and patent applications filed in the principal countries of the world, including the United States, by the Italian firm of Vigorelli and the Swiss firm of Gegauf-Bernina. However, the recent Singer-Vigorelli and Singer-Bernina patent agreements make it possible for Singer freely to manufacture and market the Class 401 machine under the Vigorelli and Bernina patents. With the possible exception of certain Brother Japanese, Brutsch and Husqvarna Swedish patent applications we know of no other adversely owned unexpired patents or patent applications which would be validly infringed by the Class 401 machine.

[fol. 3646] Class 319 Machine

The Class 319 machine, like the Class 401 machine, could infringe claims contained in certain patents and patent applications filed in the principal countries of the world by Vigorelli and Bernina. As in the case of the Class 401 machine, the Singer-Vigorelli and Singer-Bernina patent agreements permit us freely to operate under the Vigorelli and Bernina patents and patent applications.

However, the Class 319 machine infringes the recently issued Belgian and Italian patents owned by the German firm of Messerschmitt. We know that Messerschmitt has filed corresponding patent applications in Germany, Great Britain and the United States and thus we presume that within the near future there will issue to Messerschmitt German and British patents which could be infringed by our Class 319 machine. In the United States the corresponding Messerschmitt patent application is now locked in interference with the Singer patent application which relates to the Class 319 machine and we expect to prevail in this interference to the end that Singer will be awarded patent claims which will cover our Class 319 machine and which will be infringed in the United States by the comparable Messerschmitt machine.

[fol. 3647] Other than those owned by Bernina, Vigorelli and Messerschmitt, we know of no additional adversely

owned patents or patent applications which would be infringed by the Class 319 machine.

The question is now before us as to what is the best course of action to take in connection with Messerschmitt so that Singer can freely manufacture and market the Class 319 machine in Germany, Belgium, Italy and Great Britain where Messerschmitt either has or presumably will acquire patents which can be infringed by the Class 319 machine.

During our recent European conferences with Messerschmitt their representative Mr. Stromeyer indicated that Messerschmitt would be willing to grant Singer a license under their multiple-cam machine patents in exchange for a similar license under the Class 319 machine patents. However, to date Messerschmitt has not seen fit to execute such an agreement for the apparent reason that they wish to have the signing of such an agreement contingent upon Singer's agreeing to give them some type of sewing machine business.

It naturally would be to Singer's advantage to have a Singer-Messerschmitt patent agreement executed as soon as possible in view of the present or potential infringement [fol. 3648] status of the Class 319 machine in Italy and Great Britain.

Apparently, Messerschmitt is still exporting its machines to the United States where they are sold under the name Bell-Messerschmitt by the Bell Portable Sewing Machine Corporation. In the United States the Messerschmitt machine presently infringes a Singer-owned United States patent relating to the manner in which Messerschmitt mounts its sewing machine motor. Messerschmitt and Bell have been advised of this situation. In addition Bell and Messerschmitt undoubtedly realize that they will lose the United States patent interference with Singer with the result that they could in the near future be confronted in the United States with a patent infringement suit based on several Singer-owned patents.

The above factors constitute all of the necessary ingredients for a patent poker game with each party holding a good hand. However, it is our considered opinion that rather than risk losing its present market in the United States and at the same time being faced with the possible necessity of having to bring suit in both Great Britain and

Italy in order to enforce its patents against Singer, Messerschmitt may eventually be willing to exchange free patent licenses with Singer, which licenses will not be encumbered by any "business" promises. Accordingly, we recommend [fol. 3649] that for the present no further overtures be made to Messerschmitt lest they interpret such action on our part as eagerness resulting from a weak position. If Mr. Herzfeld of Toulmin & Toulmin can be relied upon, and we think he can, we would expect to hear further from Mr. Stromeyer as a result of Mr. Herzfeld's promise to us that he would advise Messerschmitt to execute our original proposed license agreement.

We would be pleased if you would instruct us as to the course of action we should take in this matter.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

In triplicate.

CC: Mr. D. P. Kircher

[fol. 3650] In United States District Court

Government's Exhibit 85

January 3, 1957.

Messrs. Cruikshank & Fairweather,
Glasgow, Scotland.

Gentlemen:

Messerschmitt Ornamental Stitch Sewing Machine having a Plurality of Cams and a Plurality of Cam Followers for Controlling the Lateral Needle Vibrations.

* * * * * * *

This will advise you that as yet Messerschmitt has not seen fit to execute with Singer an agreement under which each party would be free to manufacture and market in all countries of the world its ornamental stitch zigzag machine.

* * * * * * * *

[fol. 3651] Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fol. 3652] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 86 (S-4)

Agreement

Agreement dated as of April Sixteenth, Nineteenhundred Fiftyseven, between the Singer Manufacturing Company (hereinafter called "Singer"), a corporation organized and existing under the laws of the State of New Jersey, United States of America, and Messerschmitt, A.G., (hereinafter called "Messerschmitt), a corporation organized and existing under the laws of the Federal Republic of Germany, for them and their respective assignees and successors.

1. Singer will not bring any infringement action against Messerschmitt under the rights derived from patents now issued or to be issued in any country with respect to subject matter disclosed in the annexed drawings K1. 52 KE of 14.I.55, K1. 53 KE of 1o.XII.54 and K1. 54 KE of 6.VI.55, and when embodied in sewing machines manufactured and sold by Messerschmitt.

2. Messerschmitt will not bring any infringement action against Singer under the rights derived from patents now issued or to be issued in any country with respect to subject matter disclosed in Singer's German patent applications No. S 46 453 VII/52a as filed on 23rd November, 1955, and shown in the annexed drawing (Figures 1-62) and No. S 46 580 VII/52a as filed on 2nd December, 1955, and shown in the annexed drawings (Figures 1-13) and when embodied in sewing machines manufactured and sold by Singer.

3. Singer and Messerschmitt each agrees not to institute in any country any opposition, nullity or invalidation proceedings against or otherwise to attack in any country the other's patents or patent applications corresponding to Messerschmitt's constructions as illustrated in the drawings indicated in paragraph 1 and to Singer's German applications indicated in paragraph 2, and to immediately withdraw any such proceeding if it has already been instituted provided, however, that if such patents and patent applications are or have become involved in a patent office

priority-determining proceedings such as a United States interference or a Canadian conflict proceeding, then both parties will work together in order to settle such proceeding in accordance with the laws and regulations of the patent office concerned and in the spirit of this agreement.

[fol. 3653] 4. Singer and Messerschmitt each hereby releases the other from any and all claims for infringement of patents in respect of subject matter coming under the terms of this agreement and manufactured and/or sold in any country prior to the date of this agreement.

5. Singer, as designated in this agreement, shall be understood as including the Singer Manufacturing Company, Singer Sewing Machine Company, their present and future subsidiary, affiliated, and associated companies, licensees, and customers (as far as the use of the sewing machines is concerned) throughout the world. Messerschmitt, as designated in this agreement, shall be understood as including Messerschmitt A.G., its present and future subsidiary, affiliated, and associated companies, licensees, and customers (as far as the use of the sewing machines is concerned) throughout the world.

In Witness Whereof, the parties have executed this agreement as of the day and year written above, in Frankfurt am Main (Germany).

The Singer Manufacturing Company, by M. L. Waterman, Vice President.

Witness: ——.

Messerschmitt A.G., by ——, Directors, ——, Procurist.

Witness: ——.

[fol. 3654] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 87

April 18, 1957.

From: Mr. M. L. Waterman, Munich
To: Mr. M. C. Lightner, New York

Dear Milton:

I was very glad to be able to cable you last evening of the signing of the agreement with Messerschmitt. I was somewhat afraid that change in the management and directorship, because that is just what has happened, might mean a new attitude toward our problems, or at least having to start all over again, with new people.

We started our conversations in Frankfurt and completed the formality of signing here in Munich. Fortunately, the same patent attorney for M. was in attendance, and fortunately also, the representative of their Washington attorneys who was present last September, was not in attendance. I always felt the latter wanted to keep the matter going as long as possible.

The M. Co. is badly off financially. We gathered throughout the talks the impression they were anxious not to incur any more expenses in our interferences, present and future.

We gave them, in the course of our bargaining, the right to the Way United States patent in the machines they are now making. The patent is only taken out in the U.S.—no foreign countries. We have never used it ourselves. It is already about 12 years old Mr. Stanford believes. The fact we were doing this was never mentioned during our talks. The agreement states they will take no action against any of our machines which have in them the features of the [fol. 3655] 319 Perla patent application anywhere in the world (also of the 401 Johnson patent application likewise although we do not believe this latter machine is in any conflict with their patents or patent applications) and that we will take no action against their presently designed machines—referred to very completely in the agreement by drawing numbers and the drawings initialled and made a part of the agreement, just as the Perla and Johnson

patent drawings were likewise initialled and made also a part of the agreement.

I stated no mention was made of the Way patent, but Stanford and I were very much aware of it. Nevertheless we felt it was important, extremely so, to clear the 319. We will probably make 100 or even more to their 1, and what we were afraid of was they would suggest a licensing arrangement, we to pay for machines infringing them, and they for machines that would be infringements against our patents.

We would then have been in a very uncomfortable position, as there is no question but that they will antedate us, when the patents are issued, everywhere except in the United States.

The subject of M. turning over all their patents and applications to us, and we licensing them, is quite involved and I will not go into it in this letter. Stanford will start his people studying the pros and cons at once. I refer of course to only the patents and applications involved in the present situation. The next four days are holidays in the most of Europe. We are going down near Salsburg, not far from here.

Very sincerely, Max.

[fol. 3656] In United States District Court

Government's Exhibit 88

Received Patent Department, April 19, 1957, Answered—.

LIGHTNER SINGER MUENCHEVL83 FST 50 17 815P
AGREEMENT SIGNED 319 COMPLETELY FREE SAME IDEA AS WITH VIGORELLI AND GEGAUF STOP THEY WILL ALSO ASSIGN UNITED STATES PATENT RIGHTS AND PROBABLY IF WE WISH ALL PERTINENT FOREIGN PATENTS AND APPLICATIONS WE TO LICENSE THEM THUS GIVING US OPPORTUNITY OF PROSECUTING AGAINST OTHERS STOP WE WILL STUDY FOREIGN PATENT SITUATION SINCE THEY WILL BRING MAINTENANCE COST BUT IF OF ANY VALUE TO RESTRICT JAPANESE ESPECIALLY BROTHER WILL BE VERY MUCH WORTH WHILE STOP MILAN TUESDAY ZUERICH FOLLOWING SUNDAY

WATERMAN.

cc: Mr. M. Breen, Patent Department, Mr. H. J. Goosman, Mr. R. W. Stewart, Mr. D. P. Kircher, Mr. R. M. Miller.

[fol. 3657] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 89

Air Mail

April 25, 1957.

Dr. E. Wiegand,
Ballindamm 26,
Hamburg 1, Germany.

Dear Dr. Wiegand:

Singer-Messerschmitt Patent Agreement

Our Mr. Joel G. Stanford has sent us a copy of the Singer-Messerschmitt agreement executed in Germany on or about April 16. We, of course, were most pleased to learn that this matter has been so successfully terminated.

Mr. Stanford advised us that aside from the above noted executed agreement Messerschmitt has verbally agreed to assign to Singer all of its rights in and to their United States patent application Serial No. 548,481 which relates to the Messerschmitt machine forming a part of the subject matter of the above executed agreement. In return for this assignment it is our understanding that Singer would continue at its own expense the prosecution of this application before the United States Patent Office for the purpose of acquiring, if possible, a good and valid patent. Also, Singer would at the time of the assignment extend to Messerschmitt a royalty-free license to manufacture and sell in the United States sewing machines of the type disclosed in the application.

[fol. 3658] Mr. Stanford requested us to prepare appropriate documents to implement the above outlined verbal agreement and thus we are enclosing three documents which we trust will adequately cover the situation.

Document (1) comprises an assignment from Willy Messerschmitt and Kurt Brandt to Messerschmitt A.G. of all rights in the subject United States patent application Serial No. 548,481. In the event that Willy Messerschmitt and Kurt Brandt have already assigned their application to Messerschmitt A.G. and such assignment has been recorded in the United States Patent Office then document (1) would be superfluous and could be disregarded.

Document (2) comprises an assignment from Messerschmitt A.G. to Singer of all rights in the subject application Serial No. 548,481, which document, like document (1), has been prepared primarily for recording in the United States Patent Office.

Document (3) comprises an agreement between Messerschmitt and Singer spelling out all of the terms involved in the present assignment. This agreement would not, of course, be recorded in the United States Patent Office.

Since our Vice-President Mr. Max. L. Waterman is now out of the United States, we were unable to have him exe- [fols. 3659-3665] cute document (3) in advance. However, in the event that Messerschmitt approves of and executes document (3) it could then be returned to us and presumably by that time Mr. Waterman will be back in the States and available for executing such document on the part of Singer.

If you find these documents to be in order we would be pleased if you would take this matter up with Messerschmitt A.G. so that this matter can be disposed of at an early date. In the event that Messerschmitt approves of and executes these documents we believe that it would be well to have them executed before a proper German official so that they may thereafter be legalized at the American Consulate before being returned to us.

We thank you in advance for any assistance which you may extend to us in connection with the above.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

Enclosures—

Documents (3) (4 copies each)

CC: Mr. M. L. Waterman (3), Mr. J. G. Stanford (3).

[fol. 3666] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 93

Received Patent Department, May 24, 1957,
Answered May 24, 1957.

May 20th, 1957

L. Adamson
Frankfurt Am Main
Gutleutstrasse 42-44
Singer-Haus

J. G. Stanford, Esq.
The Singer Manufacturing Company
Patent Department
Elizabethport F., N.J.

Dear Mr. Stanford,

Messerschmitt A.G.

When the two copies of the Agreement signed with the Messerschmitt A.G. on April 16th, 1957, sent me from Paris on May 7th came to hand, we had written a letter to Dr. Wiegand enclosing one of the copies and advising him of the various telephone conversations we had with Mr. Waterman, your goodself, and Mr. Busselmeier on the 7th and 8th inst.

In that letter we informed Dr. Wiegand of the wishes expressed by Mr. Busselmeier and his suggestion to meet Dr. Wiegand at either Frankfurt or München. We told Dr. Wiegand inter alia that you did in no case wish to give Messerschmitt the possibility of giving a license to anybody and that this should be limited as much as possible, and we also sent Dr. Wiegand copies of the correspondence and telegrams in order to post him fully. We asked him to study the matter, and then let us know when a meeting with him and Mr. Busselmeier could take place so that our Mr. Krüger could, if desired, go to Munich if that town should be preferred to Frankfurt.

When we had written our informatory letter to Dr. Wiegand at Hamburg but had not posted it yet, we had a telephone call from him at Munich, telling us that he had had a talk there with Mr. Busselmeier from which he deduced

he might be able to continue the negotiations while at Munich and come to an understanding corresponding to your wishes. He asked us to send him all data to Munich as he had not his files there. We accordingly posted our letter to Munich enclosing copies of the drafts (1), (2), (3) and (3A) as handed you with my letter of May 4th sent to Paris. We asked for further news.

These we have received only in the shape of the following papers.

Letter of Dr. Wiegand to Patent Department of May 14th Aktennotiz/Memorandum of May 10th on conversation of Dr. Wiegand with Mr. Fuchshuber and Mr. Busselmeier at Munich.
Altered draft for license agreement Singer/Messerschmitt to replace agreement draft (3).

[fol. 3667] In sending us these papers, Dr. Wiegand has expressed the opinion that he has come to an agreement with the Messerschmitt people which will be acceptable to the Company.

In his letter to you of May 14th, Dr. Wiegand has underlined that Messerschmitt is willing to accept a "nonexclusive, *nontransferable* and royalty-free license" under US patent application No. 548 481, but we wonder whether this "nontransferable" will be of any practical value, seeing that in paragraphs 2 and 3 of the draft for new document (3) reference is made to the passages in the Agreement of April 16th, 1957 "that Singer will not enforce any rights from any patents against Messerschmitt, its present and *future* . . . . . *licensees* throughout the world" and "that the provisions of the said agreement . . . . shall remain unaltered."

This would, in our view, include for Messerschmitt the faculty of granting licenses in the States also to other people than the Bell Portable Sewing Machine Co. for instance and open the chance for Messerschmitt to give a license "to anybody" a development which it has been your wish to avoid as far as we know and of which we have informed Dr. Wiegand.

We do not know whether your desire of preventing the grant of a license under US patent application 548 481 or

resulting patents by Messerschmitt "to anybody" refers to the entire subject matter of the application which, if we correctly remember, covers more than the similar Singer applications, or only to that surplus over the Singer applications. If that surplus is neither disclosed in the Messerschmitt drawings Kl. 52 KE, Kl. 53 KE and Kl. 54 KE there might remain something "nontransferable" under an agreement as per the "Draft for new document (3)" otherwise it will appear to us that this term is void of any bearing. You may in that case probably want to try to get some modified wording accepted which will limit the range of possible future licensees.

We had written to Dr. Wiegand that our Mr. Krüger had told Mr. Busselmeier over the telephone that it has been our opinion that the Company would in view of its priority of conception in the States be naturally little inclined to create a possibility that any, possibly little estimated, competition of the Company would be given a license, and a royalty-free license into the bargain, under the patent maintained by Singer, but we do not know whether this item was pressed for by Dr. Wiegand at Munich.

Yours very truly, L. Adamson.

cc: Mr. M. L. Waterman, New York.

[fol. 3668] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 94

May 24, 1957

L. Adamson, Esq.
Singer Nahmaschinen Akt.-Ges.,
Gutleutstrasse, 42,
16 Frankfurt a/Main 1,
Germany.

Dear Mr. Adamson:

Messerschmitt A.G.

We thank you for your letter of May 20, 1957 in which you inquired as to the effectiveness of the Singer-Messerschmitt agreement executed by our Vice-President Mr. Max L. Waterman and mailed to Dr. Wiegand under cover of our letter of May 21, 1957.

In answer to your questions we would state that under the Singer-Messerschmitt agreement of April 16, 1957 Singer agreed not to enforce against Messerschmitt or any of its licensees and customers any rights derived by Singer from any patents in any countries with respect to subject matter disclosed in certain specified Messerschmitt drawings which were annexed to the agreement. These drawings disclose three existing Messerschmitt sewing machines of which none employs the automatic feeding mechanism which is disclosed in the Messerschmitt U.S. patent application Serial No. 548,481 which forms the subject matter of the proposed new Singer-Messerschmitt agreemnt mentioned in the first paragraph of this letter.

[fol. 3669] Under the newly proposed Singer-Messerschmitt agreement Singer, as the owner of all rights in and to the U.S. patent application No. 548,481, agrees to extend to Messerschmitt an irrevocable, nonexclusive, nontransferable and royalty-free license to manufacture and sell in the United States sewing machines of the type disclosed and/or claimed in application Serial No. 548,481. Under this agreement it is Singer's intention not to permit Messerschmitt to extend its license under application Serial No. 548,481 to other parties.

In other words, although Messerschmitt in the United States has the right to make and sell machines of the type designated in the Singer-Messerschmitt agreement of April 16, and to license any other parties to make and sell such machines in the United States, under the newly proposed Singer agreement, Messerschmitt will have the right to make and sell in the United States on its own account machines incorporating the automatic feed of patent application Serial No. 548,481, they will not be able to transfer such right to other parties. We do not believe that the two agreements mentioned above conflict with each other. There is no doubt but that the newly proposed agreement could be improved upon but frankly, we have no wish to prolong the present Singer-Messerschmitt negotiations needlessly, particularly since it is our understanding that [fol. 3670] Messerschmitt is agreeable to that form of the agreement proposed by Dr. Wiegand. We trust that Messerschmitt will execute this agreement as well as the assignment involving application Serial No. 548,481 as soon as possible.

We wish to thank you for your interest and assistance in this present matter.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman

[fol. 3671] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 95 (S-6)

Agreement

Agreement dated as of June 4 —, 1957 between The Singer Manufacturing Company, hereafter called "Singer", a corporation organized and existing under the laws of the State of New Jersey, United States of America, and Messerschmitt A.G., hereinafter called "Messerschmitt", a corporation organized and existing under the laws of the Federal Republic of Germany, for them and their respective assignees and successors.

Whereas, Singer and Messerschmitt have agreed by agreement dated as of April 16, 1957 (Frankfurt am Main) number (1) that Singer will not enforce against Messerschmitt any rights derived from any patents in any country with respect to subject matter disclosed in the drawings Kl. 52 KE, Kl. 53 KE and Kl. 54 KE, annexed to the said agreement. "Messerschmitt" includes according to number (5) of the said agreement dated as of April 16, 1957 (Frankfurt am Main): Messerschmitt A.G., its present and future subsidiary, affiliated, and associated companies, licensees, and customers, as far as the use of the sewing machines is concerned, throughout the world.

Whereas, Singer and Messerschmitt agree that the provisions of the said agreement dated as of April 16, 1957 (Frankfurt am Main) shall remain unaltered.

Whereas, Messerschmitt has assigned to Singer, its successors and assignees, for the territory of the United States of America, the entire right, title and interest in and to the United States Patent Application Serial No. 548,481, all [fol. 3672] inventions disclosed therein and in and to any and all United States Patents which may hereafter be granted therefor and in and to any and all extensions, divisions or reissues of said patents, and Messerschmitt is desirous of acquiring therefor (in return) for the territory of the United States of America a nonexclusive, nontransferable and royalty-free license to manufacture and sell sewing machines as disclosed in the said United States

patent application Serial No. 548,481 and any and all United States patents which may be granted therefor.

Now, Therefore, in consideration of the premises the parties agree as follows:

(1) Singer hereby grants unto Messerschmitt an irrevocable, nonexclusive, nontransferable and royalty-free license to manufacture and sell in the United States of America sewing machines of the type disclosed and/or claimed in United States patent application Serial No. 548,481 and as disclosed and/or claimed in any United States patents which may be granted therefor.

(2) Singer hereby agrees that it shall use its best efforts to prosecute the said application Serial No. 548,481 before the United States Patent Office for the purpose of acquiring if possible a good and valid patent therefor.

In Witness Whereof, the parties have executed this agreement as of the day and year written above.

The Singer Manufacturing Company, By M. L. Waterman, Vice President.

Witness: J. G. Stanford.

Messerschmitt A.G., By Robert Bauer.

Witness: R. Busselmeier.

[fol. 3673] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 96 (S-5)

Assignment

This Assignment made the 4th day of June, 1957.

Witnesseth That,

Whereas, Messerschmitt A.G. of Augsburg, Federal Republic of Germany, hereinafter called "Messerschmitt", is the sole owner, by virtue of assignments from Willy Messerschmitt and Kurt Brandt, of an application for United States patent and the inventions claimed therein, which application was filed in the United States Patent Office by said Willy Messerschmitt and said Kurt Brandt on or about November 22, 1955 under Serial No. 548,481 and bearing as its title "Zigzag-Type Sewing Machine with Automatic Means for Machine-Made Decorative Effects".

Whereas, The Singer Manufacturing Company, of Elizabeth, New Jersey, hereinafter called "Singer", is desirous of acquiring, for the territory of the United States of America, the entire right, title and interest in and to said inventions and the said patent application Serial No. 548,481 and in and to any all United States patents which may be granted therefor.

Now, Therefore, be it known that for and in consideration of the sum of One Dollar ($1.00) and other good and valuable considerations, the receipt of which is hereby acknowledged, the said Messerschmitt has sold, assigned, transferred and set over, and by these presents does sell, assign, transfer and set over unto Singer, its successors and assigns, for the territory of the United States of America, the entire right, title and interest in and to the above mentioned inventions and patent application, and in and to any and all [fol. 3674] United States patents which may hereafter be granted therefor, and in and to any and all extensions, divisions or reissues of said patents, the same to be held and enjoyed by Singer for its own use and the use of its successors and assigns, to the full end of the terms for which said patents may be granted, as fully and entirely as the same would have been held and enjoyed by Messerschmitt had this assignment and sale not been made.

The Honorable Commissioner of Patents is requested to issue any United States patents relating to application Serial No. 548,481 in accordance with this instrument.

In Witness Whereof, Messerschmitt has caused this instrument to be signed by its directors Bauer and Fuchshuber on the day and year first above written in the presence of the subscribing witnesses.

(Illegible) ——, ——.

Witnesses: Gabriele Rueckert, Lore Stellwag.

[fol. 3675] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 97

air mail

July 1, 1957.

Dr. E. Wiegand,
Ballindamm 26,
Hamburg 1, Germany.

Dear Dr. Wiegand:

During the negotiations between the representatives of Messerschmitt and Singer in Frankfurt/Main on April 16, we indicated that we might be interested in acquiring the Messerschmitt foreign patents which correspond to its United States patent application Serial No. 548,481. At that time the Messerschmitt representatives stated that they would consider assigning these patent rights to Singer in return for a license back to Messerschmitt.

We have considered this matter further and have concluded that it would be advantageous for The Singer Manufacturing Company to own all of the Messerschmitt patents and applications corresponding to United States application Serial No. 548,481. In return for the assignment of these patents and patent applications we would agree to assume the prosecution of all of the applications, pay the cost of obtaining the patents which have been issued to date and pay the yearly fees for the maintenance of the patents. In addition we would agree to grant Messerschmitt

a license under each of the patents. In short, we would like an assignment and agreement similar to the one we now [fol. 3676-3684] have with Messerschmitt for the United States application Serial No. 548,481.

Will you please contact Patentanwalt Busselmeier and sound him out as to whether Messerschmitt A.G. would be agreeable to an arrangement similar to the one outlined above.

We await with interest your reply.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman, Mr. L. Adamson.

[fol. 3685] In United States District Court

Government's Exhibit 103

Singer
Nähmaschinen Co. Ag.
Direktion
Badenerstrasse 41
Zurich 4

October 17, 1957.

M. L. Waterman, c/o
MLW/OS
Mr. Milton C. Lightner,
President,
The Singer Manufacturing Co.,
New York.

Dear Mr. Lightner,

I cabled to you concerning the negotiations with Messerschmitt. We arrived at an arrangement whereby Messerschmitt will assign to Singer all of its foreign patents.* The countries are all most important ones of Europe, including Great Britain, Germany, Italy and France etc.

---

* Relating to the multiple cam zig zag machine.

P.T.O.

While the patent attorney did not have the power to sign the agreement he indicated that whatever he recommended would be acceptable to the Directors of the Company. These patents are the first that Singer will own which include among the claims certain reverse feeding means in connection with some other mechanisms of an automatic cam-block machine. They are not fundamental except to the particular mechanism of the Messerschmitt style of machine. They are a worthwhile addition to Singer's collection of automatic zigzag machine patents. It remains for Mr. Wiegand's office and the Messerschmitt attorney to finalize the exact terms of the agreement and to take care of the signing by both parties. These papers will come forward to me in New York in a short time. The bundle of patents will cost us $25,000 and compensates Messerschmitt for its patent costs and a payment to the inventor (necessary under German law) and perhaps between $5,000 to $10,000 extra. Mr. Stanford thinks this cost is really low for this number of patents. It was necessary to agree that in case of a sale of the sewing machine business by Messerschmitt the purchaser of the Company would be licensed just as Messerschmitt under these assigned patents, to build and sell the present Messerschmitt machine. Such sub-licensing is only permitted to the successor building sewing machines of the Messerschmitt Company.

I realize fully just what this means but think the chances of any situation, any more serious than already exists with Messerschmitt building this machine, is very remote.

Just to show you what we went through in enduring the negotiations I am enclosing two typewritten sheets. All this about sub-licensing others promiscuously and division of territories where the machines would be made and sold was pushed aside very quickly.

[fol. 3686] One other point to be in a memorandum in letter-form accompanying the agreement states that before Messerschmitt sells its business to anybody it will advise Singer and give it first option to purchase. This means little to us other than that we will have knowledge of what is going on before it happens. I personally believe that Messerschmitt will shortly set up an independent sewing machine company, apart from its other interests, and then the new company will dispose of this sewing machine busi-

ness. It is well that we own these patents before all this happens.

Yours very sincerely, M. L. Waterman.

Enclosure.

Copy to Mr. Stanford.

[fol. 3687] In United States District Court

Government's Exhibit 104

Received Patent Department January 28, 1958, Answered—

L. Adamson
Frankfurt Am Main
Gutleutstrasse 42-44
Singer-Haus

Confidential

January 24th, 1958.

J. G. Stanford, Esq.
The Singer Manufacturing Company
Patent Department
Elizabethport F., N. J.

Dear Mr. Stanford,

Re.: Agreement Between Messerschmitt A.G., and the Singer Manufacturing Company (Foreign Patents).

On Friday, January 17th, 1958, we had a telephone call from your patent agent Dipl.-Ing. Niemann. He informed us that Mr. Busselmeier, the patent agent of the Messerschmitt A.G., had rung him up from Augsburg in order to make an appointment with him for Saturday, January 25th, at Hamburg where Mr. Busselmeier was going to meet a client of his. Mr. Busselmeier had informed Mr. Niemann that the Agreement had not been signed yet by Messerschmitt and that he wanted to explain this to him verbally as he could not do so on the phone or in writing.

We then tried to make an appointment with Mr. Busselmeier in order to give Mr. Waterman, whom we expected

here this week, a chance to speak to him. After some difficulties we could get hold of Mr. Busselmeier who was away travelling at Cologne and Wiesbaden and invited him for a conference here at Frankfurt.

This conference took place late in the evening on Tuesday, January 21st. There were present Mr. Busselmeier, Mr. M. L. Waterman, Mr. Adamson and Mr. Krüger.

Right at the beginning Mr. Busselmeier declared that he would have to ask all participants of the conference to treat the information he was going to give us as absolutely confidential, as he had no authority from his clients to give us this information and that some of it was just at the limit yet of what he could answer for in his capacity of legal adviser of the Messerschmitt A. G.

Mr. Busselmeier explained that the managing director Dr. Rothe of the Messerschmitt A. G. had not made up his mind yet to sign the agreement. There were two items which evidently had prevented this.

[fol. 3688] The one evidently is that Dr. Rothe appears to keep turning over in his mind whether Messerschmitt had not better sell the sewing machine business, the other is that the supplementary understanding to the signing of the Agreement for the Foreign Patents by Messerschmitt, confirmed to Mr. Busselmeier by Mr. Niemann in his covering letter of November 1st, 1957, with which he handed to Mr. Busselmeier the revised draft for the proposed Singer-Messerschmitt Agreement in triplicate, should be included with the Singer-Messerschmitt Agreement proper.

This supplementary understanding covers the grant of the same license as given to Messerschmitt under the agreement also to a possible purchaser of its sewing machine business, and the option of 30 days to Singer for the acquisition of this business in case of an intended sale of it by Messerschmitt.

Mr. Busselmeier pointed out that he had never had a proper chance yet to speak to Dr. Rothe thoroughly about the agreement because that gentleman is so busy and his time taken up so much by conferences in this country and abroad regarding their principal concern, the re-building of their aircraft business, that he was not able to tell us exactly what the intentions of Dr. Rothe are.

What he could tell us was therefore only his own view

of the situation formed from the occasional short talks with Dr. Rothe and from what he had gathered from conversations of Dr. Rothe and director Mr. Keller in his presence.

It appears to Mr. Busselmeier that Dr. Rothe has been and is still ventilating in his mind the question of selling the sewing machine business. A possible reason for it is that Messerschmitt is experiencing increasing difficulties in getting good engineers and mechanics for their aircraft plant, for which reason they have already had recourse to the staff of the sewing machine plant, and another is that they then can concentrate all their energies on their aircraft business.

Out of these considerations Dr. Rothe evidently believes that the sale of the sewing machine business will be more facilitated and give a better return if a bunch of valuable patents can be sold along with it. Mr. Busselmeier mentioned that there may already exist prospective buyers and that these may also have their domicile abroad since Dr. Rothe may have come into contact with them during his frequent journeys abroad.

That Dr. Rothe harbours the thought of selling the sewing machine business Mr. Busselmeier has gathered from a talk between Dr. Rothe and Director Keller, when the former asked for figures of the value of the finished machines, semi-finished products, materials and the machinery equipment, etc. From the figures learned at this occasion Mr. [fol. 3689] Busselmeier estimates that the price with which Dr. Rothe reckons will be about 4 to 5 millions DM, including the goodwill.

Mr. Busselmeier underlined that he had no authority to tell us all this but he wished to inform us of the possible developments in view of the option Singer was going to have under the supplementary understanding to the proposed agreement because he thought it right Singer should be given the chance to exercise this option although the agreement has not been signed yet.

Mr. Waterman told Mr. Busselmeier that Singer is not interested in the acquisition of the Messerschmitt sewing machine business at present and that Singer is neither interested in the Messerschmitt foreign patents to the extent that they would buy the whole sewing machine business in

order to become owners of these patents. In fact Singer does not need the patents for any of their new machines in construction, or being designed. They were just wishing to obtain the patents for supplementing their own similar patents as Singer is often acquiring patents of other inventors.

As Singer believed that Messerschmitt might care to get a substantial round sum for them they had offered the $25,000.—. These could, if the agreement had been signed by Messerschmitt and would have been available for countersigning, be paid immediately because arrangements to that effect had all been made.

Mr. Busselmeier explained that the financial situation of his clients had eased considerably since the reorganization of that company took place so that the amount offered for the patents did not tell any more so much as before, and in view of the possible sale of the sewing machine business.

Mr. Busselmeier said he would report to Messerschmitt of his conference with Mr. Waterman, the same, as he had told his clients of his intended talk with Mr. Niemann.

The conference thus ended unfortunately with little prospects of the proposed Singer-Messerschmitt Agreement being signed in the near future. Mr. Busselmeier will report after he has had a chance to talk to Dr. Rothe.

Enclosed please find copy of a memorandum on a telephone message received from Mr. Niemann yesterday about a talk of Mr. Niemann and Mr. Busselmeier after the return of the latter to Augsburg. At this occasion Mr. Busselmeier asked for the inclusion of the supplementary under- [fol. 3690] standing regarding the grant of a corresponding license to a possible buyer of the sewing machine business, which he had named as one of the points which had delayed the signing of the agreement.

Please examine whether this request can be met and, in the affirmative, kindly let us have a draft for a revised Item 2 of the agreement including this supplementary understanding.

Yours very truly, L. Adamson.

Enclosure: Memorandum.

cc: Mr. M. L. Waterman.

[fol. 3691] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 105

Received Patent Department, January 28, 1958, Answered—

WESTERN UNION

INTERNATIONAL COMMUNICATIONS

To get fast, dependable service, write in "*via W. U. Cables*" *here*

CALL LETTERS

FDK
INTL

CHARGE TO

FAX
Elizabeth, N.J.

To

January 28, 1958

FR

Via W.U.

Leo Adamson
Gersinger-Frankfurt/Main,Germany

Reurletter 24 January. We agree to purchase Patents without business under modified Busselmeier plan. If Patent owner agrees send us copy of agreement for approval.

J. G. Stanford.
Patent Department.

cc: Patent Dept.

[fol. 3692] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 106

Received Patent Department, October 20, 1958,
Answered—

Inter Office

Lederer, Livingston, Kahn & Adsit

Chicago October 1, 1958.

Mr. Harold J. Stelzer,
Department 620
Sears, Roebuck and Co.

In re: Proposed Patent License of The Singer Mfg. Co.
Our file 5982

Dear Mr. Stelzer:

We have examined the draft of license agreement transmitted with Mr. Cogley's note of September 19, 1958, which we understand was submitted by Singer to cover your Model 88 machine. Our comments are as follows, and we are transmitting this letter in duplicate in case you should want to pass them on to Singer. We are omitting any comments with regard to form, which we can iron out later, as there are certain relatively minor formal matters which we may wish to discuss after the more important questions of substance have been settled.

1. It is noted that Sears is expected to pay a royalty, so far as the United States is concerned, on the basis of a pending patent application of Gegauf, Serial No. 700,079, apparently in expectation that a patent will issue thereon. I believe it is tacitly conceded that the Gritzner machine incorporating a series of individually selectable cam followers is *not* covered by the claims of Gegauf 2,832,302, although an attempt is being made to cover the same in the pending Gegauf application Serial No. 700,079. It should be borne in mind that the claims of the issued patent were required to be restricted to the specific construction incorporating a *single* cam follower slideable on a shaft parallel

to the cam shaft to actuate a selectable cam; that claims of a breadth attempting to cover both this construction and that embodying multiple followers were refused. While, of course, we are not informed as to the progress of the divisional application in the Patent Office, it seems to us that there is at least a possibility that the Patent Office will find said application unpatentable over the issued patent.

This being the case, we are wondering if Sears would be justified in agreeing to pay Singer a substantial royalty on such a construction unless and until a patent has actually issued, in view of what transpired in the Patent Office in connection with the issued Gegauf patent.

[fol. 3693] While we believe it is a fine thing for Singer to be willing to license Sears and it may be highly desirable for Sears to take advantage of this friendly attitude of Singer, it seems to us that such a license should be predicated, at least so far as a unit royalty is concerned, on the actual issue of the divisional patent to Singer.

"Bruder and I agreed to this"

Perhaps a reasonable compromise on this point would be for Sears to pay Singer a nominal lump sum fee, such as say $500.00 or the like, to cover everything up to the actual grant of a patent on the divisional application, a unit royalty to be payable thereafter.

In making this suggestion we are not unmindful of the state of the art on the subject, only part of which was noted by the Patent Examiner in connection with the issued Gegauf patent. It has come to our attention that the mechanical arrangement utilized in the divisional Gegauf application, while possibly applied for the first time to sewing machines by Gegauf, is broadly old in the art and the question of invention in applying such an arrangement to a particular mechanical operation such as a sewing machine, is, in our opinion, at least doubtful.

2. It is noted that the license is rather restricted in that Sears is authorized only to import a particular machine, namely, the "Sears Model 88" produced by a certain West German manufacturer. While we understand that this is your present plan, we are wondering if the license is not too restricted in this regard inasmuch as you may conceivably wish to change sources at some time in the future, se-

lecting possibly another German manufacturer or possibly one from another country, or even conceivably one in the United States. It seems to us, therefore, that the license should be in the terms which are usually incorporated in Sears' patent licenses, namely, licensing Sears "to make, to have made for it, to import into the United States, to use and to sell."

"Bruder and I agreed that any change in design would be covered by license modification. Singer must OK Japanese mfgr"

3. It is also noted that the license extends only to the United States and Canada. Inasmuch as Sears has retail outlets in other countries in which Singer may possibly have corresponding patent protection, we are wondering if the license should not so provide.

"Bruder and I agreed to cover when occasion arises unless Singer knows their position now."

4. Royalty rate: We note the alternative royalty schedules A and B set forth in Clause (3) of the proposed agreement and note that Sears is to make an election before Janu- [fol. 3694] ary 1st of each year as to which schedule it elects. Under either schedule the royalties would seem to be substantial.

Of course, it is primarily for you to decide whether or not these proposed royalty schedules are economically feasible and acceptable to Sears. We merely wish to point out in this connection what we have said above with regard to the question in our mind relative to patentability of the divisional Gegauf application and to question whether or not the proposed royalties are justified in these circumstances.

This Harris Canadian patent does not correspond either to the issued Gegauf patent or to the divisional Gegauf patent, neither as to disclosure or claims, and we do not see that a license thereunder would be of any value to you so far as the Gritzner machine is concerned. Without going into extensive detail as to the Harris structure, we think it is sufficient to state that it differs from the Gritzner and Gegauf structures in the following major respects: (1) Harris discloses cams in a separate housing rather than in the main head; (2) Harris' cams are axially moveable

while his follower remains relatively stationary, being moveable only transversely of the cam shaft, and (3) in the Harris structure the cams and the follower are not disposed on parallel shafts. Accordingly, if you proceed under the license to merchandise the Gritzner No. 89 machine in Canada, here again you would *not* be covered by any issued patent to Singer so far as we are advised.

Perhaps in view of the above comments you will wish to engage in further negotiations with Singer before you and that Company will be ready to finalize a license.

Very truly yours, Frank H. Marks For Lederer, Livingston, Kahn & Adsit.

FHM:hn

cc. Mr. L. Schram, Mr. E. A. Cogley.

[fol. 3695] In United States District Court

Government's Exhibit 107

Memorandum to Mr. Bruder—November 12, 1958

Proposed Patent License Between The Singer Manufacturing Company and Sears, Roebuck and Co.

We have read the letter written by Mr Marks to Mr. Stelzer and offer the following comments:

1. It is our understanding that the Gritzner Model GU machine illustrated in the attached photocopy was modified by Gritzner in an effort to avoid the claims of the foreign Gegauf patent which corresponds to our United States patent No. 2,832,302. We further understand that the Sears Model 88 machine shown to us in New York by Mr. Marks represents the modified version of the Gritzner Model GU.

In our opinion each of these machines infringes claims 1, 5, 6 and 8 of United States Gegauf patent No. 2,832,302 and claims 1 to 7 and 10 of Canadian Harris patent No. 552,072. It is our position that Sears Model 88 employs a single cam follower and that the addition of the individual fingers between such follower and each of the cams does

not avoid infringement of our United States Gegauf and Canadian Harris patents.

2. If the position is taken that the Sears Model 88 machine does not infringe the above noted Gegauf and Harris claims, then to be consistent it must be admitted that the Sears Model 88 machine infringes allowed claims 24, 27, 30, 35 and 37 of United States Gegauf application Serial No. 700,079. These claims were on November 3, 1958 allowed by the United States Patent Office and it appears that [fol. 3696] a patent will issue with respect to such application within the next several months.

3. Recognizing that there possibly exists an area of disagreement between Mr. Marks and ourselves and also the possibility that Sears might rather import and sell the Gritzner Model GU than the present Sears Model 88, the proposed Singer-Sears license agreement is based upon both the issued and about-to-be-issued United States Gegauf patents and the issued Canadian Harris patent. In this connection it will be recalled that the attached illustration of the Gritzner GU machine is the same as that attached to the proposed Singer-Sears agreement.

4. Mr. Marks has suggested that the proposed Singer-Sears agreement should be broadened so as to include countries other than the United States and Canada. The agreement was limited to the United States and Canada since the patent situation in other countries has not as yet been entirely clarified.

5. Mr. Marks further suggested that the proposed agreement should be broadened by giving Sears a license to import into the United States machines other than the Gritzner GU and Sears Model 88 machines. There are several reasons why this is not practical, one reason is that [fol. 3697] Singer owns other patents which might be involved if machines other than the designated Gritzner machines were to be imported by Sears.

[fol. 3698] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 108

December 16, 1958.

Mr. M. L. Waterman
D. P. Kircher, Esq., President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

Proposed Complaint Under Tariff Act of 1930 (Rule 337) Based Upon Singer-Owned Gegauf Patent No. 2,832,302.

The enclosed draft of the Tariff Complaint has been revised in view of the suggestions made during our December 11 conference with you and Messrs. M. L. Waterman and A. E. Pettit. Both Messrs. J. Bradley Colburn and G. M. Brumbaugh approve of the present draft.

All concerned with the present complaint believe that the outcome of our Tariff action to a large degree will be affected by the existence of the Singer-Sears Roebuck license agreement. Mr. Colburn believes that in order to be successful we must be able to convince the Tariff Commission that Singer plans to enter into no further licensing agreements with other importers.

Furthermore, in view of the importance of this aspect of our case, it would appear that it is necessary for us to give the Commission (but not the defendant) a frank but succinct explanation of the Sears license. Enclosed is a draft of a Statement "B" which has been prepared for the Commissioner's use only.

Also enclosed are copies of the following material which has been prepared for use of the Commission only;

1. Copy of a page taken from "New Japan Sewing Machine News" showing statistics of exports of Japanese sewing machines, April 1957, March 1958, inclusive, by class and designation.

[fol. 3699] 2. Copy of page 1 of International Union of Electricians, 461 Local News, October, November 1958.

Enclosed is a copy of "Exhibit 2" comprising a tabulation of foreign sewing machine imports. This exhibit will accompany the Tariff Complaint.

We have advised Messrs. Colburn and Brumbaugh that you wish to have a final discussion with them prior to the printing of the final copies of the complaint. Both gentlemen have indicated that they could be available for such a conference any day and up to and including December 23.

Yours very truly, The Singer Manufacturing Company, J. S. Stanford, CAW, Patent Department.

CC: Mr. M. L. Waterman, Mr. A. E. Pettit.

Enclosures—

Copy of Tariff Complaint
Copy of Statement "B"
Copy of Material

[fol. 3700] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 109

January 7, 1959.

D. P. Kircher, Esq., President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

Proposed Complaint Under Tariff Act of 1930 (Rule 337) Based Upon Singer-Owned Gegauf Patent No. 2, 832, 302.

Please refer to our prior letter to you of January 6, 1959.

Enclosed is an outline of the material which Mr. J. B. Colburn proposes to submit personally to the Tariff Commission some time after the filing of the Complaint proper. We believe that you have approved of all of the statements mentioned in this outline with the exception of Statement B relating to the pending license agreement between Singer and Sears, Roebuck and Company.

Enclosed is a copy of Statement B which has been revised in view of the suggestions made during our conference in

your office on December 22, 1958. Mr. Colburn approves of this Statement.

You will recall that at the December 22 conference there was no unanimity of opinion as to how this Statement should be worded. However, Mr. Colburn is quite convinced that this Statement should not include any comparisons between imported Japanese and European sewing machines with regard to the damaging effects of such imports to United States manufacturers of sewing machines. In view of Mr. Colburn's rather strong feelings in the matter we recommend approval of the enclosed Statement B.

If you approve of the enclosed Statement we would be pleased if you would advise us accordingly so that we may proceed with its printing.

[fol. 3701] You will note that a copy of the pending Singer-Sears agreement is to be attached to the Statement B. Even though a final agreement has not been executed by Singer and Sears we believe that it is in order to attach to Statement B a copy of the pending agreement which was tentatively approved by Singer and Sears in Chicago on December 2, 1958. A copy of this tentative agreement is enclosed.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—

Outline of material.
Copy of Statement B.
Copy of tentative agreement.

CC: Mr. M. L. Waterman, Mr. C. F. Bruder, Mr. A. E. Pettit.

[fols. 3702-3706] Statement Regarding License Agreement Between Singer and Sears, Roebuck and Company

It has been and is the policy of The Singer Manufacturing Company to grant no licenses to its competitors under any of its patents. In recent months, however, Sears, Roebuck & Co. of Chicago, Illinois, a long-time reputable distributor of competitive household sewing machines in the United States, and an important customer of other products

manufactured by the Diehl Manufacturing Co. (a subsidiary of Singer as more fully shown in paragraph 2 of the complaint filed herein by Singer) requested of Singer an important license under several Singer zigzag sewing machine patents, including Singer Patent No. 2,832,302. Sears, Roebuck & Co. has always been a keen but fair competitor. The cost of the specific machines requested to be licensed is represented to be such as to insure their resale in the United States by Sears, Roebuck & Co. at a fair competitive level.

For the foregoing reasons Singer felt constrained to acquiesce to a limited extent in the request for a license. Accordingly, Singer has agreed to grant to Sears, Roebuck & Co. a license for importation of automatic zigzag sewing machines from Western Germany restricted, however, to a specific model of such machine manufactured only by Gritzner-Kayser A.G. A copy of such agreement is attached hereto.

Singer has no intention to grant and on the contrary, in accordance with its normal policy, will not grant any other licenses under any of its zigzag sewing machine patents.

[fols. 3707-3708] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 111

Husqvarna Vapenfabriks Aktiebolag
Verkställande direktören
Mr. Kindberg

Huskvarna, April 18, 1959.

By Air-Mail

Mr. Donald P. Kircher
President of Singer Manufacturing Co.
Singer Building
149 Broadway
New York City, U.S.A.

Dear Sir:

A few days ago I received through the Swedish Embassy in Washington copy of the Tariff Commission Public Notice re certain Household Automatic Zigzag Sewing Machines, dated March 16, 1959.

I find that the hearing before the Tariff Commission will take place already on May 5, which is an extraordinarily short notice for such an event.

I fully understand the necessity of combating the unfair competition of the Japanese, which is hurting you as well as us on different markets of the world, but I do hate the idea that Singer and Husqvarna, who have had a friendly cooperation with each other since 1872, should appear before the Commission on different sides of the fence.

There are certain aspects of this question which might be of value for both of us to discuss at a personal meeting before the hearing. I am willing to come over to New York at a short notice and will therefore take the liberty of calling you up in the middle of next week in order to arrange a suitable meeting time in New York.

Sincerely yours, Thure Öberg.

[fol. 3709] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 113

MEMORANDUM—JGS-F—April 30, 1959

On April 28, in New York, I discussed with Mr. Kindberg, an executive of Husqvarna in Sweden, Mr. Dahlberg, head of the Husqvarna Patent Department and Mr. Herbert O. Bergdahl, the President of Husqvarna of Sweden, Inc., U.S.A. the position of the Husqvarna Company in the Tariff Commission case in Washington. These gentlemen pointed out that since 1872 Husqvarna and Singer had been friendly competitors and neither has ever dealt unfairly with the other. It was pointed out that Husqvarna ships about 3,000 automatic zigzag machines into the United States each year. It was further brought out by the Husqvarna representatives that Husqvarna has a number of patents in foreign countries which they feel will be infringed if Singer sells the 401 machine in those countries and consequently it would be of advantage to both parties if a cross-license agreement could be made in order that Husqvarna may sell its automatic zigzag machines in all countries of the world without fear of patent infringement and Singer could sell its 401 machine in all countries of the world without the question of infringement of the Husqvarna patents arising.

It was pointed out to these gentlemen that Singer could not at this time enter into a license agreement, for doing so would have a very serious effect upon the proceeedings now before the Tariff Commission, and the Tariff Commission could not set itself up as a group which would encourage licensing of United States patents by excluding certain goods from United States commerce. This matter was discussed at great length and Husqvarna representatives were assured that Singer had nothing but the kindest feelings towards them as a company but that we could not accede to their request at this time.

The Husqvarna representatives feel that under the circumstances they are compelled to appear before the Tariff Commission and do all they can to destroy the Singer patent and they further said that they would not like to

do this as it placed them in a position of siding with Singer competitors against Singer and asked that I advise them specifically whether or not they should appear under these circumstances. I informed these gentlemen that I could not under any circumstances act as their counsel in the case and advise them as to what they should or should not do under the present circumstances, and that they alone must make this decision.

[fol. 3710] The gentlemen left with the remark that they would see us in Washington, however, they did not seem to be particularly irritated over the situation which reached such an unfortunate impasse, and there was an indication that they may come back to see us after the Tariff Commission decision has been handed down if they felt it desirable.

[fol. 3711] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 114

President's Office, Received May 4, 1959

Husqvarna Vapenfabriks Aktiebolag
Verkställande direktören

Huskvarna, April 30, 1959.

By Air Mail

Mr. Donald P. Kircher
President of Singer Manufacturing Co.
Singer Building
149 Broadway
New York City, U.S.A.

Dear Mr. Kircher:

Over the telephone yesterday Mr. Kindberg reported to me about the friendly conversation he had had with you and the interest which you, Mr. Kircher, had shown for an agreement between our two companies about a cross licensing. I was glad to learn this, and I wish to thank you for your positive attitude.

At continued talks with your Mr. Stanford it appeared—if I have rightly understood the situation—that your lawyer had certain apprehensions about concluding an agreement *before* the Tariff Commission hearing, as this might be somewhat detrimental to Singer. This I can well understand.

The situation being as stated above, we have to consider how to act at the hearing, which unfortunately is very close. The best would, of course, be if Husqvarna simply did not appear. This might, however, have an unfavourable effect on our future position. Therefore, we should have in advance some kind of assurance from you.

Provided we could arrive at a Gentlemen's Agreement to the effect that we would later—after the hearing—conclude a formal agreement on terms which you and I would jointly consider fair on the basis of the situation as it is, then I would instruct Mr. Kindberg and our other legal representatives in the United States to stay away from the hearing. This personal contact between you and me will anyway not be mentioned at any hearing or otherwise.

To make this possible in view of the short time at our disposal, I have to ask you kindly to confirm this to me by a short cable, on the receipt of which I will immediately instruct Mr. Kindberg in accordance therewith.

With interest looking forward to hearing from you, I am,

Sincerely yours, Thure Öberg.

Copy to Mr. J. G. Stanford.

[fol. 3712] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 115

WESTERN UNION

INTERNATIONAL COMMUNICATIONS

CABLEGRAM

W. P. MARSHALL, PRESIDENT

To THURE OBERG

HUSQVARNA VAPENFABRIKS AKTIEBOLAG
HUSKVARNA (SWEDEN)

May 4, 1959

Via WU CABLES

AS MENTIONED YOUR LETTER THIRTIETH WE ARE NOT FREE AT PRESENT TIME TO DISCUSS POSSIBILITY OF CROSS LICENSE ARRANGEMENTS STOP WE HAVE ADVISED YOUR WASHINGTON ATTORNEY THAT IT IS NOT OUR INTENTION TO OFFER ANY PROOF AT HEARINGS IN WASHINGTON RESPECTING HUSQVARNA UNLESS YOUR REPRESENTATIVES PLACE EVIDENCE IN RECORD STOP PRESUME YOU HAVE HAD DIRECT REPORTS OF THIS FROM YOUR PEOPLE IN WASHINGTON

KIRCHER.

Copy to Mr. J. G. Stanford.

[fol. 3713] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 116

President's Office, Received March 13, 1959

Phoenix
Nähmaschinen A.-G. Baer & Rempel - Bielefeld
Established 1865 - Gegründet 1865 - Fondée en 1865

Dr. Carl Schwalb

Mr. Donald P. Kircher
President
Singer Corporation
149 Broadway
New York, N.Y.—U.S.A.

9th March, 1959.

Dear Mr. Kircher,

Due to the fact that our firm is mentioned in the complaint submitted by you to the US Tariff Commission, it was with special care that I studied its contents.

I suppose that the objections presented by our solicitors, Messrs. Knight Bros., will be brought to your attention. Permit me to add that already in 1953 we developed our "Automatic" absolutely independently, that all our regular retail prices in the USA passed the US $300,—limit and that no intensive sales efforts have been made by us in your country.

We have also objected to the Patent assigned to you. Furthermore, in 1955, we signed an agreement with Messrs. Fritz Gegauf AG. according to which Gegauf is bound to grant us the rights of using all patents based on this principle, consequently also in the USA. Gegauf, therefore, should have made the respective reservation of our rights.

It is the purpose of this statement to show that the reproaches of unfair competition globally raised by you, are by no means justified as far as the firm represented by me is concerned. I cannot believe that in view of such a situation you will continue to maintain your complaint or other steps against us.

Permit me, therefore, the question whether you are interested in a direct settlement of this matter with our firm. I should highly appreciate such a procedure, because in my position as a president of the Association of the Sewing Machine Industry in the Federal Republic of Germany and as a delegate to the Comité Européen de Liaison des Industries de la Machine à Coudre (Celimac), I frequently have to cooperate with the managing gentlemen of your firms in the Federal Republic of Germany and other European countries.

Yours very truly, Phoenix Nähmaschinen A.-G.
Baer & Rempel, Dr. Carl Schwalb.

Copy to Mr. J. G. Stanford, Mr. M. L. Waterman.

[fol. 3714] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 117

Received Patent Department, March 17, 1959, Answered —.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

In replying please refer to DPK—10P

J. G. Stanford, Esq.
Patent Department
Elizabethport, New Jersey

Dear Mr. Stanford:

I am enclosing herewith a copy of a letter dated March 9 from Dr. Carl Schwalb of Phoenix Nahmaschinen A.G.

I am somewhat at a loss to understand the third paragraph of the letter as I do not recall anything about the Gegauf arrangement concerning a prior license to Phoenix. Perhaps you can let me know about this and I would also

appreciate it if you would give me a draft of the kind of reply which you think should be made to Dr. Schwalb.

Yours very truly, Donald P. Kircher, President.

Enc.

Copy to Mr. M. L. Waterman, Paris.

[fol. 3715] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 118

March 20, 1959.

D. P. Kircher, Esq., President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

This is in reference to your letter of March 17, 1959, DPK–10P, with which was enclosed a copy of a letter from Dr. Schwalb of Phoenix Nahmaschinen A.G.

If there is a written agreement between Mr. Gegauf and Phoenix concerning the United States patent application which issued into the United States patent now before the Tariff Commission, Mr. Gegauf failed to advise me concerning the same. I am sure that Mr. Gegauf would have reserved rights in the United States patent application for the firm Phoenix, as he did for Vigorelli, if such is the case. I have examined the papers filed with the Tariff Commission on behalf of Phoenix and it is interesting to note that they do not allege or mention that Phoenix has any rights under the Gegauf patent.

As you know, at this time we are not in a position to consider a direct settlement of the question of infringement of our Gegauf United States patent by Phoenix and to grant it a license thereunder. Also, it would seem unwise at this time to become involved in any argument with the officials of Phoenix relating to their alleged rights under our patent even though we believe that they are misinformed.

With the above in mind we are enclosing a draft of a proposed letter to Dr. Schwalb.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—

Draft of proposed letter.

CC: Mr. M. L. Waterman, New York, Mr. M. L. Waterman, Europe.

[fol. 3716] In United States District Court

Government's Exhibit 119

Proposed Letter

Dr. C. Schwalb,
Phoenix Nähmaschinen A.-G.,
Kleine Bahnhofstr. 3,
Bielefeld, West Germany.

Dear Dr. Schwalb:

This will acknowledge receipt of your letter of March 9 relative to the action we have taken with the Tariff Commission in Washington.

We are not informed as to any right you may have under our United States patent of Gegauf No. 2,832,302 which is now before the Tariff Commission. The application for this patent was acquired by Singer in good faith and before its acquisition an exhaustive examination was made which included records in the Patent Office in Washington and we found no licenses or assignments adversely affecting our title.

This week the Tariff Commission decided to institute a formal investigation and has set hearings for May 5, 1959. Under the circumstances I think it best for all concerned not to enter into a discussion of this matter until after final hearings by the Commission have been concluded.

Yours very truly, ——, ——.

[fol. 3717] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 120

Received Patent Department, April 6, 1959, Answered —.

April 3, 1959.

Dr. Carl Schwalb
Phoenix Nahmaschinen A.G.
Kleine Bahnhofstr. 3
Bielefeld, Western Germany

Dear Dr. Schwalb:

This will acknowledge receipt of your letter of March 9 relative to the action we have taken with the Tariff Commission in Washington.

We are not informed as to any right you may have under our United States patent of Gegauf No. 2,832,302 which is now before the Tariff Commission. The application for this patent was acquired by Singer in good faith and before its acquisition an exhaustive examination was made which included records in the Patent Office in Washington and we found no licenses or assignments adversely affecting our title.

As you no doubt have been advised, the Tariff Commission has decided to institute a formal investigation and has set hearings for May 5, 1959. Under the circumstances, while this matter is pending before the Commission, I think it best for all concerned not to enter into discussions of this matter until after final hearings by the Commission have been concluded.

Yours very truly, Donald P. Kircher, President.

Copy to Mr. M. L. Waterman, Mr. J. G. Stanford.

[fol. 3718] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 121

Received Patent Department, January 6, 1958, Answered—.

Dériaz, Kirker & Cie
Genève
Rue Du Mont-Blanc 14

Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Mr. J. G. Stanford,
The Singer Manufacturing Co.,
Patent Department,
Elizabethport F.,
New Jersey, U.S.A.

26th December, 1957.

Dear Mr. Stanford,

re: Gegauf's U.S.A. patent application Serial No. 700 079 of the 2nd December, 1957 (division)

We have just received the original and a copy of the assignment executed by Mr. Gegauf on the 23rd December, 1957, in Zurich, and concerning U.S. patent application Serial No. 700.079 of the 2nd December, 1957.

Mr. Gegauf would appreciate that, in view of the prosecution in certain European countries, the publication of the basic U.S. patent application Serial No. 358,377 be delayed as much as possible. Mr. Willi wrote to us that, as far as you have no contrary important reason, his client would like to ask you to pay the final fee at the end of the term, in order to delay publication of the patent.

Yours faithfully, Deriaz, Kirker & Cie, G. E. Kirker.

Enclosures (sep.) air mail and reg.

1 assignment with dupl.

[fols. 3719-3720] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 122

air mail

January 6, 1958.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's U.S.A. patent Application Serial No. 700,079 of December 2, 1957 (Division).

Thank you for your letter of December 26, 1957, K/JP, enclosing the original and a copy of the assignment executed by Mr. Gegauf on December 23, 1957.

We do not know at this time whether we can comply with Mr. Gegauf's request that the publication of United States Gegauf application Serial No. 358,377 be delayed as much as possible. In any event, we shall advise you in the near future as to the action we propose to take in this matter. In this connection we might mention that there is nothing disclosed in United States application Serial No. 358,377 that has not already been published in the Gegauf Italian patent No. 501,172 and in Gegauf Swiss. patent No. 318,123.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fol. 3721] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 124

Received Patent Department, January 20, 1958,
Answered January 21, 1958.

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

air mail

Mr. J. G. Stanford,
The Singer Manufacturing Co.,
Patent Department,
Elizabethport F.,
New Jersey, U.S.A.

17th January, 1958.

Dear Mr. Stanford,

Referring to your letter of the 6th inst., we would give you the following information we have obtained on the telephone, from Mr. Willi, of Blum & Co. attorneys of Gegauf.

The reason why they would like to postpone as much as possible the issuance of the U.S. patent deriving from Serial No. 358,377 is the following:

For the corresponding application in Germany, there are opposition proceedings in Germany. The discussion with the German Examiner is not yet completed and one of the prior art found in America has not been cited, either during the examination as to novelty or during the opposition proceedings in Germany. If the U.S. Patent issues shortly, it is to be feared that the German Examiner sees this patent and notices the list of prior art cited in America, and which will be indicated at the end of the U.S. patent. Then the German Examiner will be able to pick up certain U.S. patent which is particularly dangerous for Gegauf and, consequently, he might raise further difficulties and possibly refuse the patent. We do not know exactly which

is said U.S. patent, but Mr. Willy has given us the name on the telephone.

As the question of opposition in Germany will be settled probably within one or two months, and since the term for paying the final fee will not expire before May next, we hope you will be in a position to take Mr. Gegauf's request into account, in order that he gets in Germany the broadest possible claims. It seems that Singer has a certain interest in so doing, i.e. that Gegauf obtains broad claims in Germany for said case.

We are requesting Mr. Willi to let us know immediately as soon as the matter is settled in Germany.

Yours very truly, Deriaz, Kirker & Cie, G. E. Kirker.

[fol. 3722] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 125

January 21, 1958.

Mr. G. Kirker:
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's United States Patent Application Serial No. 700,079 of December 2, 1957 (Division).

We have received your letter of January 17, 1958 advising us why Mr. Willi of Blum & Co., attorneys for Gegauf, wishes us to postpone as long as possible the issuance of the United States patent deriving from United States Serial No. 358,377.

We do not expect to have the subject United States patent issued within the immediate future but circumstances may require us to have it issued before next May. In any event, if we do find it necessary to issue this patent before next May we shall advise you accordingly. At the same time we would be pleased if you would have Mr. Willi tell us as soon as the German matter is settled.

We would also like to know as soon as possible the

number of the United States patent which Mr. Willi believes is dangerous with respect to the German Gegauf patent application.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

[fols. 3723-3724] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 126

air mail

January 30, 1958.

Mr. M. L. Waterman,
Singer Nahimaschine Co. A.-G.,
Badenerstrasse 41,
Zurich, Switzerland.

Dear Mr. Waterman:

I am sure that you will be pleased to know that the Patent Office has now finally agreed to the amendment of the Gegauf patent application. This puts us in a position to pay the final fee and have the patent issue to the Singer Company in about 6 weeks time. Yesterday I called Mr. Kircher and gave him this information and at the same time called attention to Mr. Gegauf's request that the final fee not be paid until a later date and recommended that, due to circumstances that exist at the present time, Mr. Gegauf's request be respected. Mr. Kircher readily agreed that the final fee should not be paid at this time.

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[fols. 3725-3728] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 127

February 18, 1958.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf United States Patent Application Serial No. 358,377 Filed May 29, 1953.

In order for us properly to exploit our United States patent rights it appears necessary for us to issue the above application as a patent as soon as possible. We are particularly desirous of asserting several of our United States patents against the importers into the United States of Japanese-made multi-cam ornamental stitch machines.

It is highly desirable that the Gegauf patent application be issued promptly and, therefore, we would like to pay the final fee on or before February 28, 1958 in which event a patent should issue on or about April 18, 1958. This is only two weeks before May 1, the date mentioned by Mr. Willi.

In the event that Mr. Willi should have a strong and valid objection with respect to our proposed action please cable us accordingly.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. D. P. Kircher, Mr. M. L. Waterman.

[fol. 3729] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 130

Received Patent Department, May 28, 1959, Answered—.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

May 27, 1959.

In Replying Please Refer to MLW:V3

F. Gegauf, Esq.
Fritz Gegauf Aktiengesellschaft
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

As we previously advised you, we have instituted a proceeding before the United States Tariff Commission in an endeavor to prevent the importation into the United States of all non-licensed sewing machines which would infringe our Gegauf Patent No. 2,832,302. During a recent hearing before the Tariff Commission, Singer was asked by the Commissioners if Pfaff of Germany was licensed under Gegauf Patent No. 2,832,302 so that it could freely export infringing machines to the United States.

We advised the Commissioners that Pfaff had no such license, and it was not contemplated that such a license would be extended to Pfaff. However, in view of Paragraph (3) of the Singer-Gegauf agreement of December 5, 1957, our answer to the Commissioners was perhaps not too convincing.

We believe that the only way in which we can properly convince the Commissioners as to Pfaff's position in this matter is to revise Paragraph (3) of our agreement of December 5, 1957. Frankly, we think that such a revision of the agreement is quite necessary in order that we may have a better chance of prevailing before the Tariff Com-

mission. We hope that you will have no objection to deleting Pfaff's name from our agreement.

It is our suggestion that this matter could be most expeditiously handled by executing an agreement between Singer and yourself which would have the effect of deleting all mention of Pfaff. Such an agreement is enclosed in duplicate; and, if you believe that this new agreement is in proper order, we would be pleased if you would execute it in duplicate and return one of the copies to us so that we may convince the United States Tariff Commission as to Pfaff's position in the present matter.

[fols. 3730-3732] We would deeply appreciate any attention which you can give to this matter and, particularly, since time is a very important element.

Very truly yours, M. L. Waterman, Vice President.

Enclosure

cc: Mr. J. G. Stanford (not noted on original).

[fols. 3733-3735] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 132

Fritz Gegauf Limited
Steckborn (Switzerland)
Sewing Machine Manufacturers

Steckborn, June 10th, 1959.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y., U.S.A.

Dear Sirs:

We acknowledge receipt of your letter of May 27th, to which was given our best attention. As we are in no close connection whatsoever with Pfaff, we are in principal ready to conclude a new agreement with you in which all mention of Pfaff is deleted.

On this occasion we advise you that on April 5th, 1955, we have executed an agreement with Phoenix, photostatic

copy of which is enclosed. We did not mention this agreement in our negotiations with you time ago, because we were and still are of the opinion that the agreement with Phoenix refers exclusively to our German application G 11 654 and thus is solely and exclusively valid for the West German territory only.

Since the agreement between Bernina and Phoenix dated April 5th, 1955, was not mentioned in our agreement with you of December 5th, 1957, because of the reasons outlined above, we suggest that, in order to avoid any claims for compensation of damages Phoenix might put against us, the mention of Pfaff is deleted in the new agreement, but substituted by the mention of Phoenix.

Should our agreement with Phoenix not be considered a sufficient reason for such a substitution by the Tariff Commission, or should yourself because of other reasons not be interested to introduce the mention of Phoenix in the agreement to be newly concluded between us, we then agree not to mention both Pfaff and Phoenix under the explicit condition that you assume to their full extent all consequences that might fall on us on account of our agreement with Phoenix from April 5th, 1955.

We look forward to your comment and remain with kind regards,

sincerely yours, Fritz Gegauf Limited, F. Gegauf.

enc.

[fol. 3736] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 133

Received Patent Department, June 22, 1959, Answered —.

Dériaz, Kirker & Cie
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par
E. Imer-Schneider

Air Mail

Mr. J. G. Stanford,
Patent Department,
The Singer Manufacturing Company,
Elizabethport F., New Jersey

June 17, 1959.

Confidential.

Dear Mr. Stanford,

Re: Agreement with Bernina

Referring to Mr. Waterman's cable of the 9th instant and to your today's telephone call, please find below a résumé of the interview the writer had on the 15th instant in Zurich with Mr. Gegauf, his daughter, his son and Mr. Willy.

Bernina is willing to help you as much as possible in your fight in the U.S.A.

Bernina wrote you recently about a difficulty which arose with Phoenix. You have received a copy of their agreement with Phoenix. The writer has read the agreement and is of the opinion that it concerns Germany only and not to any foreign country. The arguments in favour of this opinion are as follows:

1) German patent applications only are mentioned in agreement;
2) At the time of signature of the agreement, patent applications were already filed in other countries for the Bernina invention referred to in the agreement;

3) It is a general rule that the abandonment of a right cannot be presumed but must be expressly stated. In the present case, giving to Phoenix the right to use the invention abroad would mean the abandonment of a part of the rights of Gegauf, and such abandonment should have been expressly men- [fol. 3737] tioned in the agreement, if such had been the intention of the parties. Assuming that such abandonment exists, as Phoenix do presently, is not in agreement with the fundamental rules.

Nevertheless Mr. Gegauf senior would not risk a litigation with Phoenix, even if there were 90 or 99% chances in his favour.

After we had this discussion, we reached the three following proposals:

1. The agreement between Bernina and Singer remains without any change and Mr. Gegauf prepares an Affidavit for the Tariff Commission in which he explains why he asked, at the time of signature of the agreement, that Pfaff be excluded from the agreement.

   Should this proposal enable you to remove the difficulties you have with the Tariff Commission, Mr. Gegauf would agree to prepare and give this Affidavit provided Singer agree to cover Bernina against the risk of possible legal action by Phoenix on the basis of the agreement of May 5, 1955. A letter from Singer to Bernina would be sufficient in this respect.
2. The agreement is replaced by the one recently proposed by Singer, which no longer mentions Pfaff. Mr. Gegauf can, in addition, supply you with an Affidavit as suggested in the preceding paragraph 1. As a counterpart Singer would have to cover Bernina against Phoenix, as indicated under 1. above.
3. The agreement is replaced by another one in which the name Phoenix is substituted for Pfaff. In this case Mr. Gegauf could prepare and send you an Affidavit explaining:

   (a) why he asked, at the time of signature of the agreement, that Pfaff be excluded from the agreement;

(b) why he now asks that Phoenix be introduced in lieu of Pfaff.

Remark. Since 1955 Phoenix has merged with Anker. In the case of the third proposal the present name of the company after merger would have to be given in the agreement.

[fols. 3738-3742] During the conversation we had today over the telephone, it was very difficult to hear you because your voice was periodically interrupted. We understand that you agree with proposal No. 2. and that Singer will be prepared to address to Bernina a letter stating that in case Phoenix did institute legal proceedings against Bernina, claiming the right to use the invention not only in Germany but also abroad and particularly in the United States, you would assume the financial risk which Bernina would run in the matter. In other words, Singer would give Bernina the assurance that, should the latter have costs or damages to pay to Phoenix on the basis of the agreement of May 5, 1955, Singer would meet the costs.

Mr. Gegauf explained to us that in spite of his sincere wish to help Singer, he is not in a position to take the risk of denying Phoenix the right they claim.

The matter being urgent, we suggest that Singer should write to Bernina, as soon as possible, the requested letter, if they agree. In the meantime Mr. Gegauf will sign the agreement and send it to you immediately upon receipt of the letter covering his company against Phoenix.

Yours very truly, Deriaz, Kirker & Cie,
E. E. Kirker.

[fol. 3743] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 136

July 14, 1959.

G. Kirker, Esq.,
Deriaz, Kirker & Cie.,
Rue du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Agreement with Bernina.

Thank you very much for your letter of June 17, 1959, K/los, advising us as to the results of the interview which you had on the 15th of June in Zurich with Mr. Gegauf, his daughter, and his son and Mr. Willi.

We were disturbed when we learned of the existence of agreement executed on May 5, 1955 between Gegauf and Phoenix. Mr. Gegauf never advised us of the existence of this agreement even though he was obligated to do so under the Singer-Gegauf agreement of April 14, 1956. Incidentally you may recall that it was Mr. Gegauf who inserted paragraph (6) in our April 14, 1956 agreement, which paragraph reads as follows:

> 6) All agreements already concluded by either party and concerning or having a connection with any of the above mentioned patents or patent applications must be communicated to the other party for approval before signature of the present agreement.

In a letter to us dated June 10, 1959, Mr. Gegauf in reference to the Gegauf-Phoenix agreement, stated that "we were and still are of the opinion that the agreement with Phoenix refers exclusively to our German application G.11,654 and thus is solely and exclusively valid for the West German territory only." We note from your letter to us of June 17, 1959 that you agree with Mr. Gegauf's interpretation of the Gegauf-Phoenix agreement.

Although we dislike Mr. Gegauf's attitude, particularly with respect to the Phoenix agreement, we presume that he is adamant about wishing Singer to assume any dam-

ages which may result if Phoenix should bring legal actions against Fritz Gegauf A.G. on the basis of the Gegauf-Phoenix agreement.

[fol. 3744] In view of this situation we are willing to settle this entire matter in accordance with paragraph (2) contained on page 2 of your above noted letter. In order to carry out our part of this we are enclosing an indemnification letter addressed to Mr. Gegauf and signed by our Vice-President and Director, Mr. Max L. Waterman. We trust that when you present this to Mr. Gegauf he will promptly execute the newly proposed Singer-Gegauf agreement as well as prepare the suggested affidavit. As mentioned in the enclosed letter, we would like to have the affidavit prepared in the English language and contain, inter alia, a definite statement that Fritz Gegauf has never extended to Phoenix any rights in and to the United States Gegauf patents Nos. 2,832,302 and 2,877,726.

We have sent Mr. Waterman's letter to you so that you may present it personally to Mr. Gegauf and thereby perhaps expedite this entire matter.

We thank you for any assistance which you can extend to us in connection with the above.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—

Letter

[fol. 3745] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 137

Received Patent Department, July 17, 1959, Answered —.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

In replying please refer to MLW:V3

July 14, 1959

Fritz Gegauf, Esq.
Fritz Gegauf Aktiengesellschaft
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf:

It is our understanding that there never has existed, and there presently does not exist, any agreements or commitments, either oral or written, between G. M. Pfaff A.G. of Kaiserslautern, Germany, and your firm of Fritz Gegauf A.G. relating to the specific subject matter of the Singer-Gegauf agreements of April 14, 1956 and December 5, 1957, and more specifically to United States patent applications Serial Nos. 358,377, filed May 29, 1953, and 700,079, filed December 2, 1957, which two applications matured respectively into United States Patents Nos. 2,832,302 and 2,877,726.

It is our further understanding that on or about May 5, 1955, your firm of Fritz Gegauf A.G. executed an agreement with Phoenix Nahmaschinen A.G. of Bielefeld, Germany, relating on your part exclusively to your German patent application G.11-654 VII/52a.

In your letter to Singer of June 10, 1959, you stated that your agreement of April 5, 1955 (we believe this date should be May 5, 1955) with Phoenix "refers exclusively to our German application G.11,654 and thus is solely and exclusively valid for the West German territory only."

Our Swiss attorney, Mr. Kirker, agrees with your interpretation of the Gegauf-Phoenix agreement.

We have requested you to delete all reference to the name of Pfaff from the Singer-Gegauf agrement of December 5, 1957, in view of the fact that Pfaff has no rights whatsoever under the above-noted United States Patents Nos. 2,832,302 and 2,877,726.

You have agreed to our request provided Singer in turn will cover your firm of Fritz Gegauf A.G. against the risk of possible legal actions by Phoenix on the basis of the agreement of May 5, 1955 between Fritz Gegauf A.G. and Phoenix.

[fol. 3746-3747] Accordingly, therefore, The Singer Manufacturing Company hereby promises to indemnify Fritz Gegauf A.G. against losses which it may sustain through any legal actions which may be brought by Phoenix against Fritz Gegauf A.G. and based upon a claim by Phoenix that the aforesaid agreement of May 5, 1955 extends any rights to Phoenix under United States Patents Nos. 2,832,302 and 2,877,726.

We further understand that you will furnish Singer with an affidavit explaining why at the time of the execution of the Singer-Gegauf agreement of December 5, 1957, you asked that Pfaff be mentioned in such agreement. We would be pleased if you would have this affidavit prepared in the English language and include therein a statement that you have never extended to Pfaff any rights in and to the subject matter of the two aforesaid United States Patents Nos. 2,832,302, and 2,877,726.

Very truly yours, The Singer Manufacturing Company, M. L. Waterman Vice President and Director.

cc: Mr. G. Kirker, Mr. J. G. Stanford not noted on original.

[fol. 3748] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 139

Received Patent Department, July 28, 1959, Answered July 31, 1959.

Dériaz, Kirker & Cie
Genève
Rue Du Mont-Blanc 14
Bureau D'Ingénieurs-Conseils En Propriété Industrielle
Fondé En 1877 Par E. Imer-Schneider

air mail registered

Mr. J.G. Stanford,
Patent Department,
The Singer Manufacturing Company,
Elizabethport F., New Jersey, U.S.A.

24th July, 1959

Dear Mr. Stanford,

re: Agreement with Bernina.

Referring to your letter of the 14th July, we would inform you that the writer had an interview with Mr. Gegauf Sen., and with Mr. Willi, in Zurich, on the 22nd inst. We prepared an affidavit according to paragraph numbered 2 on page 2 of your letter of the 17th June, and had it executed by Mr. Gegauf at the U.S. Consulate in Zurich.

At the same time, Mr. Gegauf signed the new agreement you submitted to him.

We are sending you the original and one copy of the affidavit, and the original of the agreement. The date of the agreement is the same as that of the affidavit, i.e. July 22nd, 1959.

We hope that the matter is thus settled satisfactorily for you.

Mr. Gegauf confirmed that he is willing to do all in

his power for helping Singer in their present action in the U.S.A.

We remain at your disposal and are,

Very truly yours, Deriaz, Kirker & Cie, G. E. Kirker.

enclosures (reg. airmail 1 affidavit with copy, 1 agreement)

[fol. 3749] Agreement

Agreement Dated July 22, 1959, between The Singer Manufacturing Company, hereinafter called "Singer", a Corporation organized and existing under the laws of the State of New Jersey, United States of America, and Fritz Gegauf Aktiengesellschaft, Bernina Naehmaschinenfabrik in Steckborn, Switzerland, hereinafter called "Gegauf" a Corporation organized and existing under the laws of Switzerland, for them and their respective successors.

Whreas, Singer and Gegauf have agreed by agreements dated April 14, 1956 and December 5, 1957, inter alia, that neither party would attack the other in any country of the world on the basis of certain patents and patent applications identified in the said agreement of April 14, 1956 and that all right, title and interest in and to certain United States patent applications filed by Gegauf were to be assigned to Singer as set forth in said prior agreement of December 5, 1957.

Whereas, Singer and Gegauf agree that their prior agreements of April 14, 1956 and December 5, 1957 shall continue to the end of their respective normal terms and that the present Agreement will modify the prior agreement of December 5, 1957 only to the extent necessary to carry out the spirit and intention of the present Agreement.

Whereas, Singer and Gegauf believe that the spirit of said prior agreement of December 5, 1957 can be best carried into effect if such agreement is modified as regard to Paragraph (3) thereof.

Now Therefore, in consideration of the premises the [fol. 3750] parties agree as follows:

(1) Paragraph (3) of the said agreement of December 5, 1957 should be and hereby is cancelled in its entirety, which Paragraph (3) reads as follows:

"Singer hereby agrees not to introduce, without the consent of Gegauf, legal proceedings on the basis of the said patents against Pfaff in Germany or Vigorelli in Italy, but only as far as sewing machines manufactured in Pfaff's factory in Kaiserslautern (Germany) or in Vigorelli's factory in Italy are concerned."

(2) The following paragraph should be substituted in the said agreement of December 5, 1957 in place of the original Paragraph (3):

"Singer hereby agrees not to introduce, without the consent of Gegauf, legal proceedings on the basis of the said patents against Vigorelli in Italy, but only as far as sewing machines manufactured in Vigorelli's factory in Italy are concerned."

In Witness Whereof the parties have executed this Agreement in duplicate as of the day and year written above.

The Singer Manufacturing Company by M. L. Waterman, Vice President.

Witness: D. A. Graesser.

Fritz Gegauf A.G. Bernina Naehmaschinenfabrik, by ——, ——.

Witness: ——, ——.

[fol. 3751] Affidavit

I, Fritz Gegauf, chairman of Fritz Gegauf Aktiengesellschaft Bernina-Naemaschinenfabrik, Steckborn, in Steckborn, Canton of Thurgovie, Switzerland, being duly sworn, say and depose that:

1) On the 5th of December 1957 I signed an agreement with Singer Manufacturing Company, of New York, USA. relating to the transfer to Singer of my U.S. patent application Serial No. 358 377 entitled "Zig-Zag Sewing Machines," said transfer including any and all extensions, divisions or reissues. The transfer was duly recorded at the U.S. Patent Office, as well as the transfer to Singer of my U.S. patent application Serial

No. 700 079, filed on the 2nd of December 1957 as a division of application Serial No. 358 377.

2) In said agreement there was introduced, under paragraph 3 and at my request that "Singer hereby agrees not to introduce, without the consent of Gegauf, legal proceedings on the basis of the said patents against Pfaff in Germany or Vigorelli in Italy but only as far as sewing machines manufactured in Pfaff's factory in Kaiserlautern (Germany) or in Vigorelli's factory in Italy are concerned." The sole reason for provision in favor of Pfaff, was that I have since a long time very friendly personal connections with the directors of Pfaff. I definitely state that I never extended to Pfaff any rights in and to the U.S. Patent No. 2 832 302 and 2 877 726 which derive from the said U.S. applications.

[fols. 3752-3753] 3) on May 5, 1955 I signed an agreement with Phoenix Nähmaschinen A.G. Baer und Rempel, in Bielefeld, Western Germany, relating to a licence in favor of Phoenix for my German patent application No. G 11 654 corresponding to U.S. patent application Serial No. 358 377 and relating to the same invention. I definitely state that I never extended to Phoenix any rights in and to the U.S. patent No. 2 832 302 and 2 877 726 which derive from the said U.S. application.

4) At the request of Singer and for helping them in their fight on the U.S. market, against foreign competitors, I accepted to sign, to-day, a new agreement replacing that of December 5, 1957, and which does not contain any provision in favor of Pfaff, the following paragraph being substituted in the new agreement, in place of the original paragraph 3: "Singer hereby agrees not to introduce without the consent of Gegauf, legal proceedings on the basis of the said patents against Vigorelli in Italy, but only as far as sewing machines manufactured in Vigorelli's factory in Italy are concerned".

Zurich, Switzerland, July 22, 1959.

Fritz Gegauf.

Confederation of Switzerland, Canton and City of Zurich, Consulate General of the United States of America, ss:

Subscribed and sworn to by Fritz Gegauf, before me, a Vice-Consul of the United States of America in and for the consular District of Zurich, Switzerland, duly commissioned and qualified, this 22nd day of July, 1959 A.D.

Service No. 536.
Tariff Item No. 49.
Fee Paid: U.S. $2.50.
Local CY. equiv. Sw. Frs. 11.00.

Robert Lloyd Nelson, Vice Consul of the United States of America at Zurich, Switzerland, duly commissioned and qualified.

[fol. 3754] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 141

April 8, 1957.

Mr. M. L. Waterman,
Singer Nähmaschinen Aktiengesellschaft,
Nadelfabrik Würselen,
Kaiserstrasse 106,
Würselen—Aachen, Germany.

Dear Max:

I note from your long cablegram sent from London, and also from talking to Mr. Stewart who has just gotten back, that the Vigorelli people have indicated that they are going to try to carry on on a much reduced scale.

I am not surprised at this. Obviously, they were hopeful that we would think well enough of the machines that they produce so that we would make them some sort of an offer on a "going business" basis. The consensus of opinion seems to be that the facts do not warrant our being interested in making such an offer. I hope that this is a correct viewpoint and that we are not passing up something that we should be

looking at more carefully. Please understand that I am not expressing disagreement with this conclusion, even though my comment may indicate some lingering element of doubt. I confess that I am not sufficiently familiar with the Vigorelli machines to express any opinion myself.

The thing which I am concerned about is patents. The designs which were sent to you to show the work done by the "prototype" were in your office and as far as I can find [fol. 3755] had not been the subject of examination until we got your cablegram asking that they be returned to Italy. Since then, I have seen the designs and they have also been seen by a number of others in the building and Mr. Stanford has given us a copy of the picture and also some of the text that appears in an Italian patent issued to Vigorelli. It seems that this patent goes back to 1953 and I think it is quite probable that some improvements may have been developed and not yet be in any patent papers that are open to the public.

Presumably, this machine would be a rather complicated one to build. Certainly the work produced on it is phenomenal and far beyond anything that has been produced on a 401.

I think that Vigorelli's statements that they hope to continue on a reduced scale means that they hope to continue producing their present machines until such time as somebody pays him a price for what he has to sell. I have no idea as to whether his patent on this new kind of machine is for sale. Furthermore, it has not yet been studied to see how fundamental his concepts may be, but I think that you certainly should give thought to the question of whether we want to acquire his patents and whether they would be obtainable at a price that would be considered reasonable. Possibly the machine is too complicated. Possibly there would not be a market in industry for applying this sort of mechanism in the 107W field, but we both know that for one reason and another, we have tended to be "behind the procession" in the zigzag field and I cannot help but wonder whether we would find ourselves in that position again if [fol. 3756] one of the more aggressive companies were to pick up this Vigorelli idea.

Mr. Miller will be writing you with respect to the return of these samples to Italy and will give you the benefit of the

information from the Patent Department concerning the machine, and I just wanted to add these comments so that you would have them in mind when you visit with Vigorelli in Italy and are exploring the situation and trying to make up your mind as to what should be our next move.

When we last discussed Vigorelli, you explained the opinion that his patents that are involved in the mutual agreement which you were instrumental in negotiating, were not of such a character as to really be of much value to us now that we had our agreement. The question now arises as to whether they may not have other patents such as the one that I have been discussing which would be of value, and which they might be willing to sell to us rather than hold them and hope that they could get something for them when and if they find another manufacturer who will take over their business.

After all, their going business does not have much value over and above machine tool equipment and patents. As matters stand now, we do not know how far either one of these would be of value to us.

Sincerely yours, ——, ——.

cc: Mr. Waterman's office.

[fol. 3757] In United States District Court

Government's Exhibit 142

President's Office Received Apr. 19 1957

M. L. Waterman
149 Broadway
New York 6, N. Y.

Frankfurt April 16.

Dear Milton:—

I wanted to talk with Mr. Stanford before replying to your letter of April 8 concerning Vigorelli. I too would have liked to have had an evaluation of the machinery with some emphasis on the value for uses other than by Monza.—but the feeling in Italy that we should tell him at once we

were not interested as a going business (and I have no quarrel with this view) and his immediate reply that he had decided to carry on rather precluded for the time being such an examination and study. I think that opportunity will probably come up again later. I had surmized he might go next to Rimoldi. Bowmann also suggested this,—but I learn Rimoldi may be also looking for a purchaser, or at any rate, would not be against considering offers for itself. [fol. 3758] The samples received in N.Y. of the machine Vigorelli has referred to looked good. Stanford doubts they were done on a machine made in accordance with the patent that has been mentioned. A machine with needle moving sideways at the direction of cams, with feed moving sideways, and likewise backward and forward would appear to be the last word in complication. Pfaff is in trouble with its machine that lengthens and shortens a pattern at will.

However I have telephoned to Bowmann to sound out Vigorelli to learn if the new machine may be seen by me next week, and I shall then also learn if there are any patents of which we have no knowledge, and also if there seems to be any way we can study the equipment. This latter I will have to inquire about carefully and only if the conversation can be carried on in the proper spirit.

[fol. 3759] I realize full well that what you say about our being behind in the field of zigzag sewing is so. The experience of today with Messerschmitt of which I hope to cable you tomorrow from Munich is ample emphasis of our position. I feel pretty sure it will be favorable, but we have been skating on some pretty thin ice, particularly in this last case.

You may be assured I shall attempt to get the opportunity to evaluate this latest Vigorelli effort and any other patents or applications of which we can learn.

Very sincerely, M.L.W.

[fol. 3760] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 143

Oriental Department
Singer Sewing Machine Company
Room 514, Singer Building

Memorandum

December 29, 1959.

Mr. M. L. Waterman

Vigorelli Machine

I have reviewed the evaluation reports which you sent me with your memorandum of December 22. My own feeling is that, while there is some doubt as to the value or salability of a complicated machine of this type in the under-developed countries of the Orient and Latin America, the more sophisticated countries of Europe, the U.S., Australia and perhaps to some extent South Africa, will have to be considered. I presume the principal problem is that of patent rights and from this angle my thinking is that Singer, as the leading sewing machine manufacturer in the world cannot afford to be left behind. I understand that the new Vigorelli mechanism is quite radical and that their patents, when issued, may be of such a nature that we could not develop a similar machine without infringing. If this is correct, it seems to me that regardless of the degree of value to us of these patents at the present time, in order to maintain our traditional leadership in the sewing machine field, it would be advisable to make a deal with Vigorelli, before it is too late.

As Mr. Burchill has a very fundamental knowledge of sewing machines in general as well as very definite ideas on problems of this kind, I asked him to review the evaluation reports and, as of interest to you, I am enclosing a copy of his comments.

A. K. Aurell.

AKA/CC

Copy to: Mr. M. C. Lightner, December 30, 1959.

[fol. 3761] Mr. Aurell

I have read with very great interest the various comments on the new Vigorelli machine, and it would appear to me that as a whole they give the impression that, if the machine is improved from a mechanical point of view, it will be a very serious competitor.

Miss Hutton's comments must be taken separately from the others, as they are the only comments from a thoroughly competent operator and dressmaker—in fact, an outstanding person in both these fields. In my opinion she stresses too much the necessity of perfect stitching in the highly technical dressmaking area, and to my mind this is not too big an area in the whole world-wide sales of Domestic machines. In other words, few of our competitors even attempt to approach us in perfect plain stitching on their plain machines, let alone their zigzags; and for a great many years I have felt that we are inclined to stress this feature which was one of our main selling points when domestic zigzag machines did not exist.

I am not advocating that we reduce our standards in this respect, but rather that we combine the features of first class sewing with extensive adaptability. Many years ago, while in London I asked Research Division to incorporate control of the feed along with control of the needle in zigzag stitching, and my opinion has not changed since then, that this is a basic necessity in Domestic zigzag machines, so that apart from decorative stitching, the zigzag feature can be used to execute automatically useful items such as "briar stitches", buttonholes, etc.

As far as the Technical Comments are concerned:—As I have never inspected the machine in question from a Technical point of view, I must and do accept the comments as being factual. On the whole these comments are pro rather than con and those that fall into the con class, seem to me to be such that they could be reasonably easily overcome by a little technical ingenuity.

Summing up:—I feel that we cannot afford to allow the competition to sweep ahead of us in features which are obviously attractive to the user, and good or excellent selling points, and that most or all of these features should be studied for incorporation in our machines.

H. B.

[fols. 3762-3801] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 144

January 4, 1960

Referred to Mr. M. L. Waterman

Your memo of November 25th and the attached reports are extremely interesting. I think that we are in agreement that there has been incorporated in this machine features which we do not have in a 401, and it would have considerable sales appeal. There also seems to be general agreement that the performance of the machine is not what it should be, but that our people could overcome these defects.

The thing that I find to be missing is an analysis of the patent situation; i.e., What is there in the patent area which we can acquire? To state it differently, what can we make a machine do if we acquire the patents that would be secured in a new deal with Vigorelli and that we cannot do under our present patent situation? It seems to me that this is the crux of the problem, because I think we want to explore the possibility of our being in a position to build the maximum sales appeal into a new Singer machine.

M. C. Lightner.

[fol. 3802] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 154

Confidential

March 14, 1958.

H. R. Crawford, Esq.
c/o Tokyo, Japan

Dear Mr. Crawford:

I enclose herewith a copy of a letter which Mr. Waterman has written to Mr. Yasui of the Brother Company dated March 11. You will note that the letter constitutes an informal and friendly warning to Brother that their machines infringe certain of our patents and also certain of our patent applications which are expected shortly to

mature into patents. The infringements involve only the sale of Brother machines of the types indicated in the letter in the United States and Canada.

Ordinarily we would not send a warning letter of this kind as there are some legal disadvantages in doing so but in this case the conversation we had with Yasui at luncheon here in New York a couple years ago seemed to me to obligate us to give him informal advice of infringements before we took legal action against any of his companies. I am advised by the Patent Department that they expect the patent applications referred to in the letter to Yasui to mature into issued patents within six or eight weeks. As you know, it is our intention, as soon as these patents are in [fol. 3803] hand, to bring infringement suits against the Brother companies which are distributing infringing machines in the United States unless in the meantime the sale of the infringing machines has been stopped as a result of the warning letter.

Before reaching the decision to proceed aggressively to enforce these patents and before deciding to send the letter to Yasui, we naturally took into account the impact which this would have upon our new effort to obtain validation in Japan. While the effect is difficult to gauge, it was our conclusion that the overwhelming importance of protecting the 401 Machine from infringements by Brother and other infringers made it necessary to subordinate considerations relating to validation in Japan to the larger interest. While one might be inclined to think that the effect in Japan would be harmful, upon reflection I am not convinced that this will be the case. It might rather indicate to the Japanese the present and potential technological power of the Singer Company from which they might conclude that it would be desirable for them to reach some accommodation with us in Japan. While this is all speculative, I am of course anxious that you and Mr. McKinnon and other principal members of the staff in Tokyo as well as Messrs. Young and Holzapfel should be fully informed of this so that all concerned in Japan will be able to deal with any repercussions there. It is highly desirable that this information be kept as confidential as possible and this should be borne in mind in deciding precisely which persons [fol. 3804] should be informed and they should of course

be cautioned against revealing the information to anyone. I do not know whether you and Mr. McKinnon will feel that Japan Steel should be informed. There would be risks in doing so but you can decide this after discussing it with Mr. McKinnon.

Yours very truly, Donald P. Kircher, President.

Enc.

Copy to Mr. J. McKinnon, Mr. A. K. Aurell, Mr. M. L. Waterman, Mr. R. W. Stewart.

[fol. 3805] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 155

Memorandum—CAW-K—May 20, 1958

The Brother Select-O-Matic Machine Infringes One or More Claims of the Following Singer-Owned Patents:

1. Gegauf U.S. Pat. No. 2,832,302, Apr. 29, 1958,
2. Harris U.S. Pat. No. Re. 24,370, Oct. 8, 1957.
3. Harris Can. Pat. No. 552,072, Jan. 21, 1958.

The Brother Pacesetter Machine Infringes One or More Claims of the Following Singer-Owned Patents and Patent Application:

1. Gegauf U.S. Pat. No. 2,832,302, Apr. 29, 1958,
2. Harris U.S. Pat. No. Re. 24,370, Oct. 8, 1957,
3. Harris Can. Pat. No. 552,072, Jan. 21, 1958,
4. Peets U.S. Pat. No. 2,617,375, Nov. 11, 1952,
5. A U.S. patent application covering the Singer Class 401 machine, which application will issue as a patent in the very near future.

Mr. M. L. Waterman on May 20, 1958 handed original to M. Yasui at meeting in Mr. Waterman's office.

Copy given to G. M. Brumbaugh May 20, 1958.

[fol. 3806] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 156

Air Mail

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

July 31, 1958.

J. M. McKinnon, Esq.,
Tokyo, Japan.

Dear Mr. McKinnon:

Proposed Patent Infringement Actions in Japan and the United States Based Upon Singer-Owned United States and Japanese Patents.

Thank you for your letter of July 23, 1958, E-407/58, enclosing a copy of your letter of July 23, 1958, E-406/58, to Mr. H. R. Crawford.

You have suggested that it might materially assist you in your efforts on behalf of the Pine Company if we would hold in abeyance, for a few months at least, the prosecution of our proposed United States and Japanese civil suits based upon the infringement by Japanese manufacturers and United States importers of certain Singer-owned Japanese and United States patents. We have reviewed your suggestion with Messrs. Kircher and Waterman and it is the concensus of opinion here that we should proceed with these various proposed patent actions in the following manner.

1. In accordance with your suggestion, the proposed infringement actions in Japan with respect to Brother, Juki and Mitsubishi should not be instituted for the time being.
2. Although further investigation of the imitation Singer Class 231-25 "Feed-off-the-Arm" sewing machines should be continued by your office it is agreed that no action should be taken with respect to the imitators at the present time.

3. As you know, our civil action in the United States against the United States firm of Brother International has been on file for some time. However [fol. 3807] it is not expected that a trial will be had for at least two years. In view of this situation, it is felt that the continued vigorous prosecution of this action will have little or no effect upon the Pine situation in Japan. Therefore, this civil action will be continued.

4. We have for some time been planning to institute in the United States a second infringement suit with respect to an importer and or dealer of infringing Japanese machines. At the present moment it appears that the most likely candidate will be a dealer in Sanshin machines. It appears that it will help our situation in the United States immeasurably to institute this second civil action and since such actions in the United States seldom are set for trial earlier than three or four months after the institution thereof, it would appear that such a second civil action would not materially affect your Pine situation. Thus, we are authorized to proceed with this second action.

5. We have for some time been planning to institute in the United States an action under United States Tariff laws which action would involve many if not all of the United States importers of Japanese zig-zag stitch sewing machines. However, in view of the present Pine situation, the institution of this Tariff action will be held in abeyance at least until the latter part of September. Furthermore, such action will not be begun without again taking cognizance of your Japanese problems.

In your above noted letter to Mr. Crawford, you made mention of the fact that you are in the process of assembling the data which we requested of you in our letter of June 26. Since this data will be employed by us in connection with our pending civil suits, it would be well if we could receive such data as soon as possible. We appreciate, how-

ever, that the development of this data requires a great deal of time and effort on the part of your office.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

CC: D. P. Kircher, M. L. Waterman, H. R. Crawford, Oriental Dept.

[fol. 3808] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 157

Received Patent Department, December 24, 1958, Answered—.

M. L. Waterman
149 Broadway
New York 6, N.Y.

December 22, 1958.

C. F. Baumann, Esq.,
Milan, Italy.

Dear Mr. Baumann:

We are in the process of bringing an action under the United States Tariff laws, the result of which, if successful, would be to exclude from entry into the United States all automatic zigzag machines of the type similar to the Gegauf, Bernina, Vigorelli, and the Singer Class 401.

In order to properly prosecute this action, it will be necessary for us to tell the United States Tariff Commission about our outstanding licenses under the Gegauf Patent No. 2,832,302 to Gegauf-Bernina and Vigorelli, so that the Gegeuf and Vigorelli machines will not be excluded from being imported into the United States. Also, it will strengthen our case for us to advise the Tariff Commission of the approximate number of automatic zigzag machines exported to the United States by Vigorelli during the past 12 months. We are making this same request of Gegauf-Bernina.

We would be most appreciative if you would ask Dr. Landó to take this matter up promptly with Mr. Vigorelli so that this information might be supplied us at the earliest opportunity.

Very truly yours, M. L. Waterman.

cc: Mr. D. P. Kircher, Mr. J. G. Stanford, not noted on original.

[fol. 3809] In United States District Court

Government's Exhibit 158

Received Patent Department, December 24, 1958, Answered—.

M. L. Waterman
149 Broadway
New York 6, N.Y.

December 22, 1958.

Mr. Fritz Gegauf
Fritz Gegauf A.G.
Bernina Nahmaschinenfabrik
Steckborn, Switzerland

Dear Mr. Gegauf

We are in the process of bringing an action under the United States Tariff laws, the result of which, if successful, would be to exclude from entry into the United States all automatic zigzag machines of the type similar to the Gegauf-Bernina, Vigorelli, and the Singer Class 401.

In order to properly prosecute this action, it will be necessary for us to tell the United States Tariff Commission about our outstanding license under the Gegauf Patent No. 2,832,302 to Gegauf-Bernina and Vigorelli, so that the Gegauf and Vigorelli machines will not be excluded from being imported into the United States. Also, it will strengthen our case for us to advise the Tariff Commission of the approximate number of automatic zigzag machines exported to the United States by Gegauf-

Bernina during the past 12 months. We are making this same request of Vigorelli.

We would be most appreciative if you would supply us, at your earliest opportunity, with this information.

Very truly yours, M. L. Waterman.

cc: Mr. D. P. Kircher, Mr. J. G. Stanford (not noted on original)

[fol. 3810] In United States District Court

Government's Exhibit 159

C. F. Baumann
Via Dante 18-Milano
Telef. 89.77.45

December 30, 1958.

Mr. M. L. Waterman
149 Broadway
New York 6, N.Y.

Dear Mr. Waterman:

We have received your letter of December 22nd with the information about the action you are taking under the United States Tariff laws to prevent the entry into the United States of certain types of automatic zigzag machines. This information was conveyed to Mr. Vigorelli this morning who was quite pleased to hear of your action, with the hope that once it is successful he or Bernina may be able to take parallel action in Italy vis-à-vis the Wilson and Caser zigzag machines.

Mr. Vigorelli was quite happy to supply the figures you ask for, although apologetic about the modest figures themselves. The quantity of automatic Vigorelli zigzag machines exported to the United States totalled 550 in 1957 and 545 in 1958. Following the trouble he had with his U.S. agent two or three years ago his business almost dwindled to nothing and is only slowly picking up again.

Mr. Vigorelli asked to be remembered to you and Mr. Stanford and trusts he will see you again at the 1959

Milan Fair, by which time he hopes to have ready* his new edition of the rather complicated machine that you examined in his office.

Yours very truly, C. F. Baumann.

P.S.—May I take the occasion to thank you for your letter of Dec. 16th enclosing a trade publication pertaining to Italy.

CFB/sr

cc: J. G. Stanford.

Received M.L.M. January 5, 1959.

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*[fol. 3811] In United States District Court

Government's Exhibit 160

Received M.L.W. January 26, 1959, Answered—.

Fritz Gegauf Limited
Steckborn, Switzerland
Sewing Machine Manufacturers

Steckborn, January 21st, 1959.

Mr. M. L. Waterman
149 Broadway
New York 6, N.Y., U.S.A.

Dear Mr. Waterman:

We refer to your letter of December 22nd, addressed to Mr. Fritz Gegauf senior, and kindly ask you to excuse the delay in answering it, which is due to absence of Mr. Gegauf, who only returned today.

We note that you are prosecuting an action under the United States Tariff laws to exclude from entry to the U.S. all automatic zigzag machines similar to the Gegauf-Bernina, Vigorelli and Singer 401. We wish you the best of success in this action.

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*and on show

For your convenience we advise that in 1958 a total of 3405 Bernina automatic zigzag sewing machines were exported to the U.S., a small part of it being shipped in January only, due to the fact that because of excessive receipt of orders for delivery in November and December, we could not supply all machines wanted.

We hope to have been of service with above statement, and are looking forward to remain informed about the results of your action.

With kind regards, we remain,

very truly yours, Fritz Gegauf Limited, ——, ——.

Copies Patent and D. H. Kircher.

[fols. 3812-3814] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 161

Airmail

January 27, 1959.

Mr. J. M. McKinnon, General Manager
Singer Sewing Machine Company
Tokyo

Dear Sir:-

Tariff Commission Complaint

As you know, the Company had under consideration the filing of a complaint with the Tariff Commission against the import of zigzag sewing machines which infringed your suppliers patents. This complaint has now been made and for your information we attach a copy of the actual complaint. Since being lodged, the complaint has aroused quite a storm of protests by sewing machine importers and dealers, particularly those who import from Japan, and various newspapers have reported on these protests.

There will no doubt be similar repercussions in Japan for, as you will note from the complaint, it is aimed more directly at Japan than at any other country but our position is that it is aimed at anyone and everyone who infringes our patents—and this should be your position. To

assist you in dealing with any inquiries, we attach copy of a prepared statement you may use at your discretion. We would prefer, of course, not to become involved in discussing the pros and cons of this complaint through the medium of newspaper articles but you may consider it advisable to make a statement as it is quite possible there will be a storm of protests in the Japanese press, particularly the sewing machine trade publications, in which our position will be misrepresented. In addition, you will probably be questioned by MITI officials.

To enable you to meet this situation should it arise, we are giving you the complete background to this tariff complaint.

Very truly yours, Singer Sewing Machine Company, ——, ——, Assistant Vice President.

encls:

[fols. 3815-3829] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 163

May 2nd, 1935.

Cablegram Received From M. L. Waterman, Sent From Clydebank

Goosman Singer,

New York.

RE YOUR LETTER 8TH 27TH ZIGZAG MACHINE STOP ALTHOUGH HAVING NO BEARING ON DECISION BUILD MULTI-CAM FOR UNITED STATES MUST STATE MY OPINION NEED IN EUROPE IS EQUAL IF NOT MORE IMPORTANT SINCE NEARLY ALL COMPETITORS THERE HAVE THEM AND THOSE NOW WITHOUT WILL HAVE SOON STOP AS FAR AS STANFORD AND I CAN SEE VIGORELLI WILL QUITE SURELY DOMINATE 282 AND 1040 IN MANY EUROPEAN COUNTRIES AND BRAZIL AND WE HAVE NO ASSURANCE THAT OTHERS MAY NOT DO SAME IN UNITED STATES EVEN IF VIGORELLI DOES NOT STOP OUR POSITION TO COMMISSIONER PATENTS TO TAKE SPECIAL PROMPT ACTION ON OUR APPLICATION SHOULD INFORM US WITH WHOM AND AS TO WHAT FEATURES THERE IS INTERFERENCE AND STANFORD INCLINES TO OPINION THAT WITH THE KNOWLEDGE WE WILL THEN HAVE OF OTHERS CLAIMS AND THERE NON KNOWLEDGE OF OURS WE SHOULD NEGOTIATE PROBABLY DIRECTLY IF WITH VIGORELLI AS TO CROSS LICENSING POSSIBILITIES AND PERHAPS WITH ANY OTHER WITH WHOM THERE IS INTERFERENCE STOP WE SHOULD HAVE THIS INFORMATION IN PERHAPS THREE MONTHS AND COULD THEN DELAY ISSUANCE OUR PATENT PERHAPS SIX MONTHS LONGER DURING WHICH INTERVAL WHILE OPPONENTS ARE UNAWARE OF OUR CLAIMS SUCH NEGOTIATIONS WOULD HAVE TO BE COMPLETED STOP I QUESTION IF TESTS BY OUR OWN PEOPLE IN THE UNITED STATES OF THE NEW SEWING MECHANISM OF 282 ARE SUFFICIENT ON WHICH TO BASE THE LARGE TOOL EXPENDITURE AND PERHAPS EVEN FOR BUILDING AS PER STEWARTS MEMO SEVERAL MONTHS AGO TO LIGHTNER UNLESS MACHINE IS SURELY INTENDED FOR U S MARKET ONLY STOP ANY CONSIDERATION INVOLVING EVENTUAL FOREIGN FACTORY 282 MANUFACTURE AND OFFERING MACHINES IN FOREIGN MARKET SUGGEST DESIRABILITY TESTING BEING CARRIED OUT BY EDUCATIONAL DEPARTMENT ABROAD WHERE REQUIREMENTS ALWAYS DIFFER STOP STANFORD SAYS MACHINES CAN BE TESTED ABROAD IF DONE SECRETLY BY OUR PEOPLE STOP OFFER SUGGESTION THAT BEFORE PROCEEDING TOO FAR AND INVOLVING LARGE EXPENDITURES THE SUBJECT OF PATENT STATUS BE DISCUSSED WITH STANFORD ARRIVING NEW YORK 10TH MAY

Waterman.

cc: Mr. M. C. Lightner, Mr. R. W. Stewart, Mr. D. G. Robbins, Mr. D. P. Kircher.

[fol. 3830] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 169

Received Patent Department, January 5, 1959, Answered—.

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

Division of Research

In Replying Please Refer to TK:V7

January 2, 1959.

J. G. Stanford, Esq.,
Elizabethport, New Jersey.

Dear Mr. Stanford:

Procedure Under Tariff Act of 1930 (Rule 1337) to Prohibit the Importation into the United States of Zigzag Stitch Sewing Machines which Infringe Singer-Owned Gegauf Patent No. 2,832,302.

We have reviewed the list of foreign manufacturers and exporters and United States importers of machines infringing Singer patents and arrived at, what we think, is a more complete and up-to-date list than that in the present draft of "Complaint of The Singer Manufacturing Company". Subject to your approval, the list would now be made of 21 different United States importing firms, 8 Japanese exporting firms, 17 Japanese manufacturers and 11 European manufacturers of machines infringing Singer patents.

There is no ready evidence in this office proving that all these machines are actually being imported into the United States but "on information and belief"; the firms listed have trade connections with United States importers and distributors and, therefore, potentially they are within the scope of the Complaint. It is common knowledge that the market potential in the United States for automatics, ability and the freedom for foreign-made machines to undersell American-made products and the complete absence of im-

port restrictions in this country were the primary reasons for our competitors to enter into the production of automatics.

As additional background information for the purpose of the Complaint, we would add the following observations:

1. The sewing machine industry in Japan occupies the third position as dollar-earner after shipbuilding and electrical machinery and is actively supported by the Japanese government. Two Ministries, the MITI and the Ministry of Light Machinery, have special [fol. 3831] "divisions of sewing machines" with the function of controlling and promoting the production and export of sewing machines, conducting research and development of machines and methods of production. Published history of the Japanese sewing machine industry is quite frank in admitting that it was developed through the copying of foreign-made machines and that a continuous study of foreign designs is being made in order, as they claim, to learn the techniques of design and production and to meet the quality standards. In 1956, for example, the Technical Committee of the Sewing Machine Industry Association had undertaken the study of Adler, Pfaff, Necchi and Singer machines (Singer zigzag 206K20 and straight stitching 201K1). Soon after the study had been completed, the Japanese industry entered into the production of zigzags on a large scale with the machines having features copied from the sample designs. It is feasible that this practice has been repeated when late in 1957 and through 1958, the Japanese entered the production of automatics with Singer 401A, Pfaff, Necchi and Borletti automatics serving as models. It appears, therefore, that infringing of foreign patents and the consequent "unfair competition" is inherent with the Japanese industrial design and the Japanese government is fully aware of the fact.
2. It can be expected that, during the hearings, an argument will be raised against import restrictions pointing to the fact that Japan had already introduced preventive measures, in the form of check prices and quotas, against possible "unfair competi-

tion" effects of Japanese machines in foreign markets. The weakness of such argument is apparent in the fact that there is no quota system for zigzag machines and, although there are check prices for zigzag machines, Japanese themselves do not consider it an adequate or effective measure. The trade publications are full of criticism of the check price systems pointing out that zigzag machines are, in fact, exported below the minimum check price. This issue became so important that both MITI and the Ministry of Light Machinery are submitting a new law to the Diet that would employ stronger measures against "design piracy" and other unfair practices of Japanese manufacturers and exporters.

3. Assuming that the Complaint would result in Presidential order excluding the entry of competitive automatics into the United States, it can be expected that Japanese will try to get around such an order by shipping separately the pattern selecting mechanism and the machine heads. In such a case, the [fol. 3832] machine would clear customs as a non-automatic and the unit would later be incorporated into the head by United States importers. Such practice is already being used for the purpose of avoiding paying the higher check prices for automatics. The machines are imported here as semi-zigzag machines and the automatic device is later on assembled into them by the United States importers.

4. As further background information, we enclose the "NKB Research Monthly" published by The Nippon Kangyo Bank, Ltd., presenting a review of the sewing machine industry in Japan.

Very truly yours, The Singer Manufacturing Co.,

T. Krzyzanlak.

Enclosure.

Letter in triplicate.

CC: Mr. M. L. Waterman.

United States Patent Office

Re. 24,370
Reissued Oct. 8, 1957

24,370

EMBROIDERING MECHANISM FOR ZIGZAG SEWING MACHINES

Carl Harris, Montreal, Quebec, Canada, assignor to The Singer Manufacturing Company, Elizabethport, N. J.

Original No. 2,693,778, dated November 9, 1954, Serial No. 292,468, June 9, 1952. Application for reissue June 16, 1955, Serial No. 516,858

7 Claims. (Cl. 112—158)

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue.

This invention relates to sewing machines and more particularly to an embroidering mechanism for sewing machines of the zigzag type.

Zigzag sewing machines are well known in the art and many attachments for such machines have been heretofore proposed to simplify and augment the production thereby of ornamental designs and stitches. In general, however, such attachments require skilled attention on the part of the operator and they are subject to a very limited range of designs.

An object of the present invention is to provide an embroidering mechanism for zigzag sewing machines which is simple and inexpensive to manufacture, which may be readily mounted on existing machines, which is capable of producing a very wide variety of designs with minor and convenient adjustment of the mechanism, and which substantially reduces the skilled attention required by the operator.

The invention will be described with reference to the accompanying drawing in which:

Figure 1 is a side elevation of a machine embodying the mechanism of the present invention,

Figure 2 is an elevation of the other side of the machine,

Figure 3 is an end elevation, partly in section,

Figure 4 is an end elevation,

Figure 5 is a plan view of one form of design applied to a fabric, and

Figure 6 is a plan view of another form of design.

The sewing machine illustrated is of the usual zigzag type and comprises conventional elements including a main frame having a work-supporting bed-plate 1, on one end of which is mounted the tubular standard 2 having an arm 3 overhanging the bed-plate 1. The head 4 is carried by the free end of the arm 3. The needle-reciprocating shaft 5 is journalled in the arm 3 and extends longitudinally thereof. A needle bar 6 carrying a needle 7 is mounted in the head 4 and is connected to the shaft 5 for reciprocation thereby by usual means, not shown. The needle-bar 6 is journalled in a frame 8 which is pivotally mounted on pin 9 in head 4 for lateral swinging movement. Such movement is imparted to the frame 8 and needle-bar 6 by means of a pitman 10 pivoted at one end by screw 11 to frame 8. A split ring 12 mounted on the other end of the pitman embraces an eccentric 13. The eccentric 13 has an enlarged opening 14 therein to receive a transverse shaft 15 journalled in the walls of arm 3. The eccentric 13 is carried by a frame 16 which is adjustably mounted on a disc 17 fixed to the shaft 15. A pin 18 mounted in frame 16 has a rounded end portion extending into an axial bore 19 in shaft 15 and it will be appreciated that adjustment of the frame 16 and consequent adjustment of the eccentricity of eccentric 13 is effected by reciprocation of the pin 18, all in the conventional manner.

The shaft 15 is driven from shaft 5 by means of a gear wheel 20 fixed thereto and a worm gear 21 on shaft 5. Shaft 5 is driven in the usual manner by belt pulley 22 mounted on one end thereof.

In accordance with the invention, means are provided for automatically varying the eccentricity of the eccentric 11 in accordance with a fixed preselected pattern and such means, as shown, comprises a spindle 23 reciprocally mounted in bore 19 and having a conical end portion 24 in engagement with pin 18. Spindle 23 acts upon pin 18 in the same manner as the conventional manually-actuated regulating spindle and moves in one direction to reciprocate the pin 18 outwardly and in the reverse direction to permit the pin 18 to reciprocate inwardly under the influence of the biasing spring 26 in frame 16. However, spindle 23 of the present invention is spring-biased in such reverse direction by means of a spring 25 on the spindle, such spring being located in an enlarged diameter portion 27 of bore 19. Spindle 23 has a rounded head 28 located exteriorly of the arm 3 on the rearward side of the machine.

Means for automatically reciprocating spindle 23 comprises a selected one of a series of cams 29 mounted on shaft 30 journalled in an auxiliary frame which includes bearings 31 suitably supported in a fixed relation on the main frame of the machine. The cams 29 are keyed to the shaft for longitudinal adjustment therealong by means of the keyway 32 and may be locked in desired position on the shaft by set screws 33 or the like. Each cam 29 comprises a plate of predetermined shape, the edge of which constitutes the cam surface. In operation, a preselected one of said cams is locked in position on the shaft 30 with its edge in engagement with *a cam follower in the form of* the rounded end of spindle 23, which is urged against the cam surface by the spring 25. It will be observed that, on rotation of the cam, the spindle 23 will be subjected to a succession of cycles of reciprocating movements of desired amplitude depending upon the shape of the cam. As will follow from the foregoing description, such movements will result in corresponding variations in the eccentricity of the eccentric 13.

Means for driving the cam shaft 30 at a suitable speed comprises a shaft extension 34 on the end of shaft 5, a worm gear 35 fixed to shaft extension 34, a gear wheel 36 meshing with gear 35 and fixed to a vertically disposed shaft 37 mounted in bearings 38 and 39 carried by bearing brackets 40 and 41 mounted on the standard 2, a worm gear 42 fixed to shaft 37, and a gear wheel 43 fixed to shaft 30. It will be apparent that the ratio of gears 35, 36, 42 and 43 may be chosen to provide a desired speed of rotation of cam shaft 30. It will be apparent that cam shaft 30 must rotate very slowly and at a very much lower speed than that of shaft 5. While this speed ratio may vary considerably, a satisfactory ratio is one which will result in one revolution of a cam 29 for each 450 reciprocations of the needle, i. e., for each 450 penetrations of the material by the needle. This ratio may, however, vary from 250 to 750 reciprocations to one cam revolution depending upon the shape and length of design desired. The gear 43 shown has 38 teeth and a diameter of 3½ inches. The number of teeth on gear 43 may of course vary considerably and a range of 24–60 teeth may be mentioned by way of example. The gear 36 shown has 19 teeth and a diameter of 1¾ inches. The number of teeth on gear 36 may likewise vary considerably and a range of 15–19 teeth is mentioned by way of example.

Means may be provided for holding spindle 23 out of cam-engaging position during positioning of the selected cam for operating movement. This means may comprise a rod 44 reciprocatingly mounted in arm 3 and having a

depending end portion 45 for engagement with an annular shoulder 46 on spindle 23. *An operator-influenced* knob 47 on the other end of rod 44 is provided for imparting reciprocating movement to the rod.

The machine is provided with the usual loop-taker and feed dog mechanism, not shown.

In operation, the lines or paths along which an ornamental design is desired to be formed are marked on a piece of fabric as indicated at 48. Thereafter, the operator, having selected a cam corresponding to a desired pattern and locked it in operating position, operates the machine in the usual manner while, however, merely guiding the work along the indicated lines. The automatic variations in the eccentricity of the eccentric 13 will cause the formation of embroidered designs as indicated, design 49 in Figure 6 being produced by the action of one cam and design 50 in Figure 7 being produced by the action of another cam. Thus, no special skill is required on the part of the operator in the formation of the designs.

Various changes may be made in the structure described without departing from the spirit of the invention as defined in the appended claims. For instance, the cams 29 and camshaft 30 may be mounted on the front of the machine instead of on the back, as shown. In the latter event, the shaft 15, spindle 23, and associated parts will be mounted in reverse position in arm 3. As will be apparent from Figure 3, such reverse mounting will permit use of a shorter spindle 23.

What is claimed is:

1. In combination with a sewing machine having a main frame, a needle bar, a driven needle bar-reciprocating shaft, a rotary needle bar-vibrating eccentric, and a spindle reciprocally mounted in the frame for adjusting the eccentricity of said eccentric, an embroidering mechanism comprising an auxiliary frame mounted on the main frame, a shaft mounted in the auxiliary frame in substantially right angular relation to said spindle, a cam mounted on said shaft and having a cam edge surface, said spindle having a free end projecting laterally of said main frame, said free end being engageable with said cam surface, a spring engaging said spindle and urging it into engagement with said cam surface, and a chain of gears mounted in said auxiliary frame and positively and constantly drivably connecting said needle bar-reciprocating shaft and said cam shaft to drive said cam shaft in response to every rotative movement of said needle-bar reciprocating shaft, said spindle being thereby subject to substantially constant reciprocating movement in response to all rotative movement of said needle bar-reciprocating shaft.

2. An embroidering mechanism as defined in claim 1, said chain of gears comprising a speed reduction gear means driving said cam shaft at a ratio of one revolution of said cam to at least 250 reciprocations of said needle bar.

3. An embroidering mechanism as defined in claim 1, said needle bar-reciprocating shaft having an extension on one end thereof, said chain of gears comprising a worm gear fixed to said extension and drivable with said needle bar-reciprocating shaft, a shaft mounted in said auxiliary frame in right angular relation to said needle bar-reciprocating shaft, a gear on said right angular shaft meshing with said worm gear, a worm gear fixed to said right angular shaft, and a gear on said cam shaft meshing with said second worm gear, said second gear being of greater diameter than said first gear.

4. In combination with a sewing machine having a main frame, a needle bar, a driven needle bar-reciprocating shaft, a rotary needle bar-vibrating eccentric, and a spindle reciprocally mounted in the frame for adjusting the eccentricity of said eccentric, an embroidering mechanism comprising a spring engaging said spindle and urging the latter laterally outwardly from said frame, said spindle having a free end projecting laterally of said frame, an auxiliary frame mounted on the main frame, a shaft journalled in said auxiliary frame in right angular relation to said spindle, a cam fixed to said last-mentioned shaft and having a cam edge surface engaging said free end of the spindle, and gear means in positive and constant driving connection with said last-mentioned shaft and said needle-bar reciprocating shaft to drive said cam continuously during all rotative movements of said needle-bar reciprocating shaft thereby to impart substantially constant reciprocating movement to said spindle.

5. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said frame mounted for rotation about a common axis and shiftable lengthwise of said axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means normally urging said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of said common cam axis during the normal operation of the machine, a manually operable member carried within said frame and having a portion positioned adjacent to and movable with said cam follower for withdrawing said cam-engaging head from and radially of said selected cam surface, a handle formed on said member and extending outside the confines of said frame, means enabling a selected cam of said series to be shifted lengthwise of said common axis and disposed in operative engagement with said single cam-engaging head after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with the other end of said single cam-engaging head thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

6. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, means including a constantly rotatable eccentric for imparting swinging movements to said needle driven by said rotating means, a series of rotary cams having different stitch patterns carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means normally urging said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of said common cam axis during the normal operation of the machine, a manually operable member carried within said frame and having a portion

positioned adjacent to and movable with said cam follower for withdrawing said cam-engaging head from and radially of said selected cam surface, a handle formed on said member and extending outside the confines of said frame, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and means operatively connecting the other end of said cam-engaging head with said needle swinging means whereby the patterns of lateral swinging movements imparted to said needle by said rotating eccentric are automatically varied.

7. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising a hollow frame, a needle pivotally carried by the frame and mounted for endwise reciprocation and for lateral swinging movements, a first rotary shaft mounted horizontally in the frame for reciprocating the needle, means for rotating the shaft, a second shaft carried vertically by the frame, gears connecting the first and second shafts whereby the second is driven by the first, a third shaft carried by the frame in parallelism with and at a location below the first shaft, gears connecting the second and third shafts whereby the third is driven by the second, a series of rotary cams having different stitch patterns carried by and rotatable with the third shaft, a cam follower, means mounting the cam follower in the frame at a location beneath the first shaft for movement radially of the third shaft, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of the series, means enabling a selected cam to be engaged by the single cam-engaging head, spring means normally urging the single cam-engaging head into engagement with the selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative

to each other lengthwise of the third shaft during the normal operation of the machine, manually operable means disposed adjacent to and movable with the cam follower for withdrawing the cam-engaging head from and radially of a selected cam surface, said last mentioned means including a horizontal rod reciprocatingly mounted in the frame with a portion thereof extending outside the confines of the frame and with a knob provided upon the exposed end of the rod for imparting reciprocating movements thereto, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the third shaft after the cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of the series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with the needle at a point spaced from the pivot and its other end operatively connected with the other end of the single cam-engaging head thereby to impart lateral swinging movement to the needle in response to the surface of the selected cam.

References Cited in the file of this patent or the original patent

UNITED STATES PATENTS

1,020,089	Gray	Mar. 12, 1912
1,033,721	Miller	July 23, 1912
1,105,354	Laula	July 28, 1914
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2,005,070	Bitzer	June 18, 1935
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Oct. 8, 1957 C. HARRIS Re. 24,370

EMBROIDERING MECHANISM FOR ZIGZAG SEWING MACHINES

Original Filed June 9, 1952 4 Sheets-Sheet 1

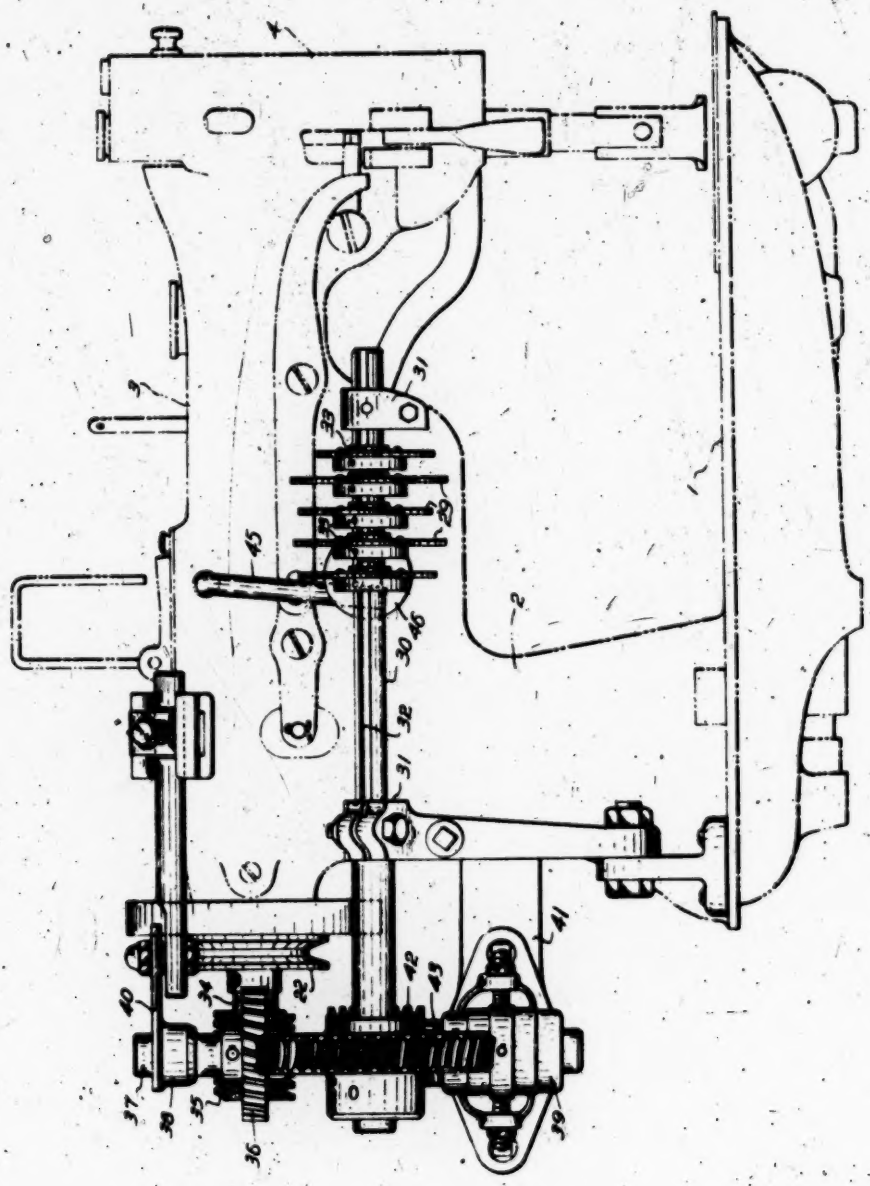

Fig. 1

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Oct. 8, 1957 C. HARRIS Re. 24,370

EMBROIDERING MECHANISM FOR ZIGZAG SEWING MACHINES

Original Filed June 9, 1952 4 Sheets-Sheet 2

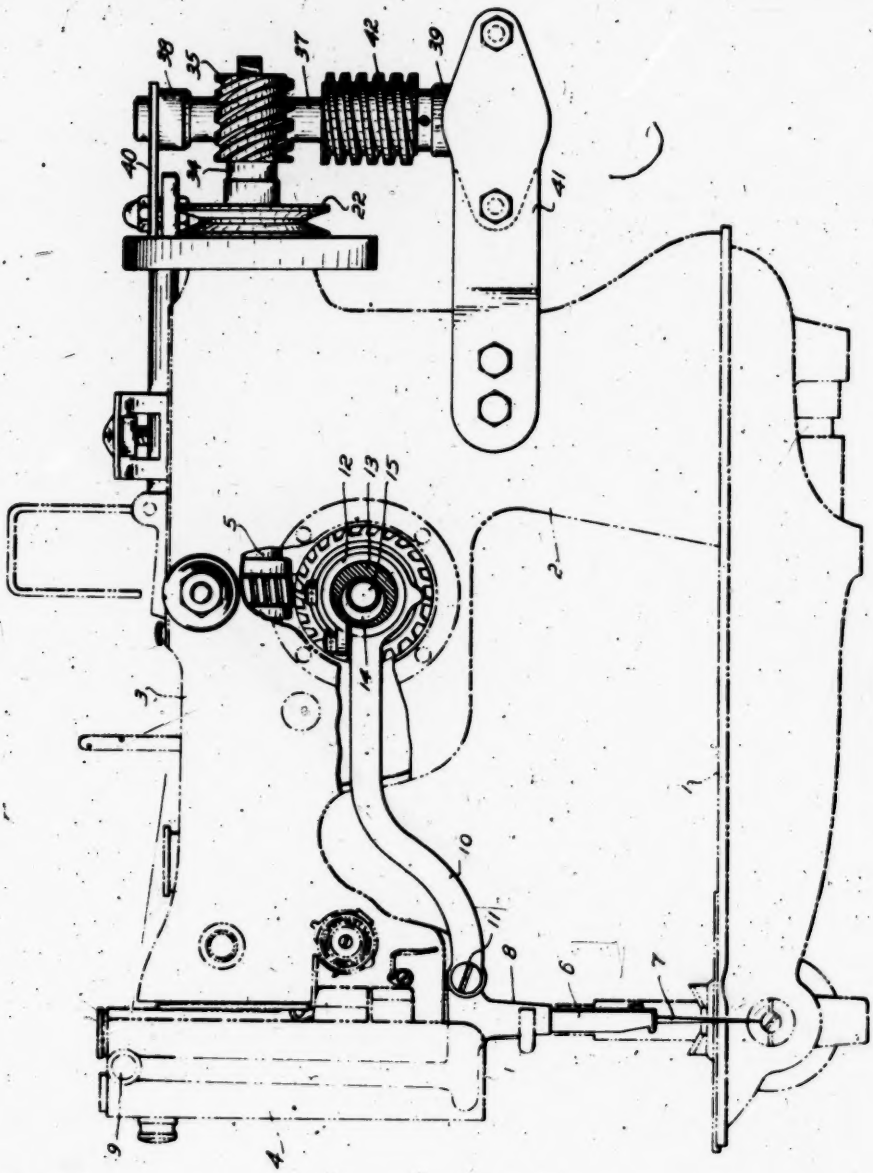

Fig. 2

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EMBROIDERING MECHANISM FOR ZIGZAG SEWING MACHINES

Original Filed June 9, 1952 4 Sheets-Sheet 3

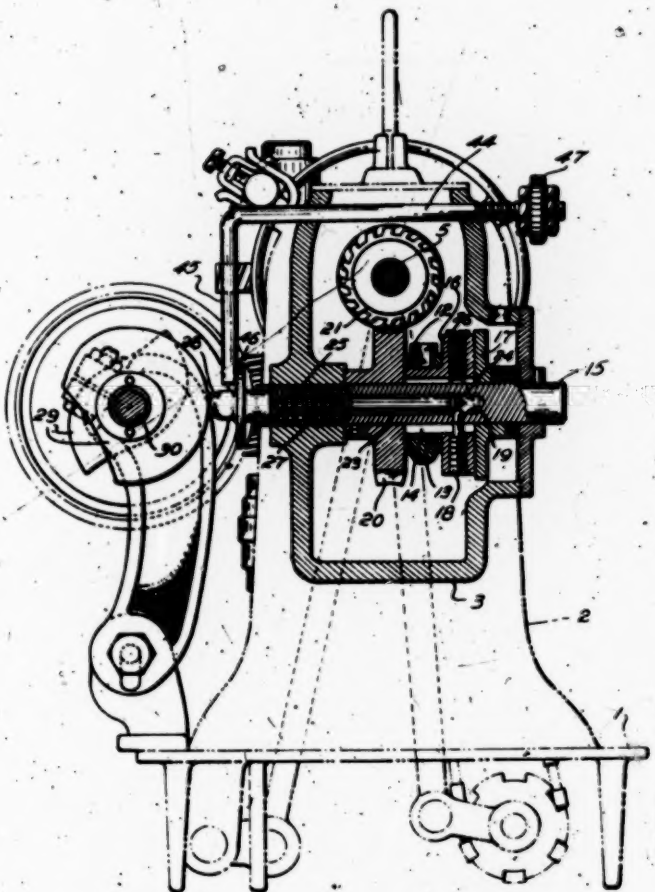

Fig. 3

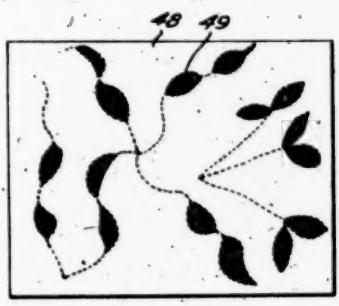

Fig. 6

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EMBROIDERING MECHANISM FOR ZIGZAG SEWING MACHINES

Original Filed June 9, 1952 4 Sheets-Sheet 4

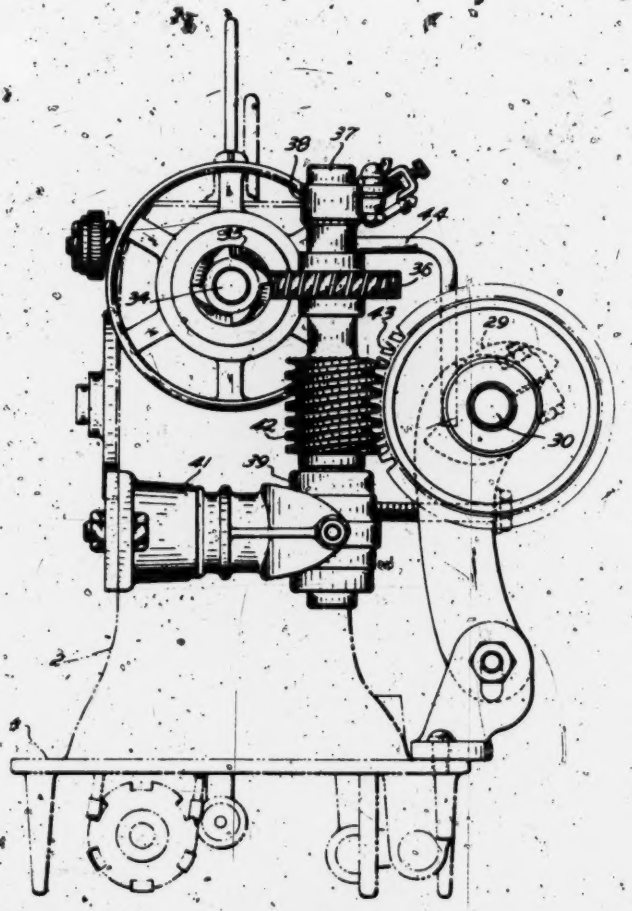

Fig. 4

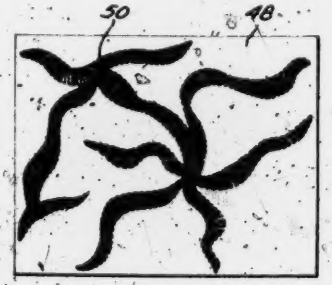

Fig. 5

INVENTOR.
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BY
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[fol. 3945] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 173

IN THE UNITED STATES PATENT OFFICE

Division 24

December 15, 1955.

In re Application of Carl Harris

Serial No.: 516,058
Filed: June 16, 1955
For: Embroidering Mechanism Zigzag Sewing Machines

Hon. Commissioner of Patents, Washington 25, D. C.

SIR:

In response to the Office Action of November 25, 1955, please amend the above-identified application as follows:

In the Claims:

Rewrite claims 13, 14 and 15 as follows:

19. A sewing machine comprising, a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis thereby to effect a complete traverse of said [fol. 3946] series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engagable with said cam follower for

withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.—

Rewrite claim 16 as follows:

20. A sewing machine comprising a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams carried by said frame mounted for rotation about a common axis and shiftable lengthwise of said axis, means connected with said shaft for rotating said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam of said series to be shifted lengthwise of said common axis and disposed in operative engagement with said cam-engaging head, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.—

Rewrite claims 17 and 18 as follows:

[fol. 3947] 21. A sewing machine comprising a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a shaft rotably mounted in said frame for reciprocating said needle, means for rotating said shaft; means including a constantly rotable eccentric for imparting swinging movements to said needle driven by said rotating means, a series of differently shaped rotary cams carried by said frame for rotation about a common axis, means driven by said shaft for rotating said cams about said common axis,

a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis thereby to effect a complete traverse of said series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for withdrawing said cam-engaging head from said selected cam surface, said cam follower being operatively connected with said needle swinging means whereby the patterns of lateral swinging movements imparted to said needle by said rotating eccentric are automatically varied.—

Remarks

Applicant's attorneys wish to express their appreciation to the Examiner and Acting Primary Examiner for the courtesies extended to them during their recent interview.

Reconsideration of the claims now in the application is respectfully requested. Claims 13 to 18, inclusive, have been rewritten as claims 19 to 21, inclusive.

Claims 13, 14 and 15 were rejected as lacking invention over Magowan in view of Bitzer. As was pointed out during the interview, neither Magowan nor Bitzer teache the proper combination of the references in the manner [fol. 3948] proposed by the Examiner in his rejection. Magowan does not disclose a cam-engaging head shiftable lengthwise of a series of cams so as to completely traverse the entire series and engageable with the surface of a selected cam. Further, the Magowan devise merely provides for the shifting of two cam-engaging heads so that one of the heads engages with its corresponding cam surface. There is no teaching whatsoever in Magowan of withdrawing either of the cam-engaging heads from the surface of the cam. The Bitzer device is non-analogous art since it relates to a lace attachment for full fashioned knitting machines. While in Fig. 5, Bitzer discloses a plurality of cams and a cam follower, the patentee is not concerned with the problem of imparting lateral swinging movements to a needle of a sewing machine. In combining the Magowan

and Bitzer references, the Examiner has attempted to follow applicant's teaching.

Van Tuyl et al 2,590,907 is hereby made of record, in view of the fact that it was discussed during the above-noted interview. Although the reference discloses a sewing machine having embodied therein a plurality of cams and a cam follower, it fails as a reference since the cams are used in conjunction with the thread-handling mechanism of the machine. There is no teaching in the reference of how such cams and cam follower can be combined with the needle swinging mechanism of the Magowan device to achieve the results tanght by applicant.

The rejection of claim 15 on Magowan in view of Sigoda is now moot since claim 15 is no longer in the case.

Claim 16 was rejected as being fully met by Aronson et al or Casas Robert et al, both of record. Claim 16 has been [fol. 3949] rewritten as new claim 20 which specifically defines a series of rotary cams carried by the frame mounted for rotation along their common axis and shiftable lengthwise of their axis. The cam follower mounted in the frame is defined as having a single cam-engaging head for engaging and responding to the surface of a cam of the series. The claim further defines means enabling a selected cam of said series to be shifted lengthwise of said common axis and disposed in operative engagement with the cam-engaging head. Neither Casas Robert et al or Aronson et al discloses a series of cams shiftable lengthwise along a common axis so as to be disposed in operative engagement with the cam-engaging head of the follower. Thus neither of these two references teaches the disclosure of Harris.

Claims 17 and 18 were rejected over Magowan in view of Sigoda. These claims have been rewritten as new claim 21. In combining the references, it is believed that the Examiner has merely followed the teaching of applicant. Claim 21 defines "means including a constantly rotatable eccentric for imparting swinging movement to said needle driven by said rotating means, . . .". Magowan does not disclose any such means for imparting swinging movement to his needle. Magowan's needle responds directly to the surface of the cam and this intelligence is not communicated to any means including a constantly rotating eccentric.

Sigoda does not teach the placing of a series of differently shaped rotary cams on a sewing machine frame for rotation about a common axis with means for selecting any one of the sams to be engaged by the cam follower which is operatively connected to the needle swinging means. Even by combining the Magowan and Sigoda references, the Examiner has to make further modifications, following the [fols. 3950-3953] the teaching of applicant, before the device of claim 21 can be met.

It is respectfully submitted that the claims as now presented are in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Respectfully submitted, Carl Harris, By Meade, Browne, Schuyler & Beveridge, Attorneys for Applicant.

December 14, 1955.

[fol. 3954] DEPARTMENT OF COMMERCE

United States Patent Office
Washington

Mailed April 27, 1956, Pat. Div. 24.

Applicant: Carl Harris
Ser. No.: 516,058
Filed: June 16, 1955
For: Embroidering Mechanism for Zigzag Sewing Machines

Joel G. Standford
The Singer Mfg. Co.
Elizabeth F, N. J.

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.
Responsive to amendment filed December 15, 1955.
Additional references applied:

Miller	1,033,721	July 23, 1912	112/65
Laula	1,105,354	July 28, 1914	112/2

This application now contains Claims 1-4 inclusive, and 19-21 inclusive.

Upon reconsideration Claim 19 is rejected as being fully met by the patent to Miller, newly cited. Miller discloses a sewing machine comprising a frame 3, a zigzag needle 62, a rotary shaft 4 and means for rotating said shaft, a series of rotary cams 75-77 inclusive, means 7 etc. for rotating said cams about a common axis, a cam follower 68 having a single cam-engaging head, means 88 enabling a selected cam to be engaged, means urging said cam-engaging head into engagement with a selected cam surface, means 90 engageable with said follower for withdrawing said cam-engaging head and a pitman 66 as broadly claimed.

Claim 21 is rejected as lacking invention over Aronson et al in view of Miller, the latter cited above. The patent to Aronson et al discloses a combination sewing machine [fol. 3955] and zigzag attachment substantially as claimed differing only in that Aronson et al varies the lateral swinging movement of the needle by manually interchanging various cams. Miller discloses the expedient of utilizing a series of cams and a shiftable follower for varying the lateral swinging movement of the needle. In view of the above teachings and as broadly recited, to utilize the series of cams and shiftable follower suggested by Miller in lieu of the manually shiftable cams of Aronson et al would not involve invention but mere mechanical skill.

Claim 20 is rejected as lacking invention over Aronson et al in view of Miller taken as applied to Claim 21 and Laula, cited above. In the above formed Aronson et al reference device, whether the follower be shifted and the cams stationary or vice versa would not involve invention but a mere reversal in parts. In this respect note the patent to Laula, Figure 19 which shows the expedient of shifting a series of cams with respect to a follower to be old in the sewing machine art.

Claims 1-4 inclusive are allowable.

Claims 19-21 inclusive are rejected.

Applicant should prepare this application for final disposition.

Thomas J. Hickey, Examiner.

J. Franklin: jmg

[fol. 3956] U. S. Patent Office

Division 24

May 16, 1956.

Application of Carl Harris
Serial No.: 516,058,
Filed: June 16,1955,
Embroidering Mechanism for Zigzag Sewing Machines.

107 Trumbull Street,
Elizabeth F, New Jersey,
May 11, 1956.

The Hon. Commissioner of Patents, Washington, D. C.

SIR:

In response to the Office action of April 27, 1956, please amend the above identified application as follows:
In the Claims:

Rewrite claim 19 as follows:

D

22. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said frame and mounted above a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means normally urging said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of said common cam axis during the normal

[fol. 3957] operation of the machine, a manually operable member carried within said frame and having a portion positioned adjacent to and movable with said cam follower for withdrawing said cam-engaging head from and radially of said selected cam surface, a handle formed on said member and extending outside the confines of said frame, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with the other end of said single cam-engaging head thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

5. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said frame mounted for rotation about a common axis and shiftable lengthwise of said axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means [fol. 3958] normally uring said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of said common cam axis during the normal operation of the machine, a manually operable member carried within said frame and having a portion positioned adjacent to and movable with said cam follower for with-

drawing said cam-engaging head from and radially of said selected cam surface, a handle formed on said member and extending outside the confines of said frame, means enabling a selected cam of said series to be shifted lengthwise of said common axis and disposed in operative engagement with said single cam-engaging head after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with the other end of said single cam-engaging head thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

6. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, means including a constantly rotatable eccentric for imparting swinging movements to said needle driven by said rotating means, a series of rotary cams having different stitch patterns carried by said frame and mounted [fol. 3959] about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means normally urging said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of said common cam axis during the normal operation of the machine, a manually operable member carried within said frame and having a portion positioned adjacent to and movable with said cam follower for withdrawing said cam-engaging head

from and radially of said selected cam surface, a handle formed on said member and extending outside the confines of said frame, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and means operatively connecting the other end of said cam-engaging head with said needle swinging means whereby the patterns of lateral swinging movements imparted to said needle by said rotating eccentric are automatically varied.

Remarks

Add D.

Applicant's attorney wishes to express his appreciation to the Examiner and Acting Primary Examiner for the courtesies extended to him during his recent interviews. [fol. 3960] Reconsideration of the claims now in the application is respectfully requested. Claims 19 to 21, inclusive, have been rewritten as claims 22 to 24, inclusive.

Claim 19 was rejected as being fully met by the patent of Miller No. 1,033,721, and claim 21 was rejected as lacking invention over Aronson *et al.* No. 1,551,453 in view of Miller No. 1,033,721. Claim 20 was rejected as lacking invention over Aronson *et al.* No. 1,551,453 in view of Miller No. 1,033,721 and Laula No. 1,105,354.

As was pointed out during the interviews, Miller does not teach the placing of a series of differently shaped rotary cams on the sewing machine frame for rotation about a common axis with manually operable means for selecting any one of the cams to be engaged by the cam follower which is operatively connected to the needle swinging means. Although Miller does disclose the use of a nest of rotary cams, it is to be appreciated that these cams are tracked and traversed by a follower element 67 which, at all times, is in engagement with the cams and is automatically and positively shifted from one cam to the other in a predetermined sequence by means of a rotary controlling cam 89. Absolutely no means is provided in the Miller mechanism for enabling an operator manually to

select any one cam of the nest of cams for the purpose of performing a predetermined stitch pattern. The several working cams 74, 75 and 76 of the Miller machine are separated by switch cams 77 and 78 which function to shift the follower 67 automatically from one working cam to the other in a predetermined sequence all as automatically goverened by the timing cam 89. Even if manually operable handle means were provided with the Miller follower 67, it is manifest that the operator could not shift the follower to any desired cam for the reason that such shifting would be precluded because of the presence of the [fol. 3961] timing cam 89 and its associated operative lever 82.

From the above, it is manifest that the Miller reference does not anticipate applicant's inventive concept.

As was also pointed out during the interviews the British Magowan patent No. 19,184, of record, could not be properly combined with the Miller reference to anticipate applicant's invention. For example, Magowan does not disclose a cam-engaging head shiftable lengthwise of a series of cams so as completely to traverse the entire cam series and engageable with the surface of a selected cam. Further, the Magowan device merely provides for the shifting of two cam-engaging heads so that one of the heads engages with its corresponding cam surface. There is no teaching whatsoever in Magowan of withdrawing either of the cam-engaging heads from the surface of the cam. From this, it is clear that no combination of the Miller and Magowan references would anticipate applicant's invention without further modification of the resulting hybrid unit.

The Laula reference discloses a button sewing machine having a stack of cams (see Fig. 19) which provide for cam operation of a button-feed disk. There is absolutely no teaching or suggestion in the Laula reference as to how such button-controlling cams could be employed for controlling the swinging of a needle so that an operator could select any cam of the group for the purpose of performing a predetermined stitch pattern. Therefore, the button-controlling cams of the Laula reference cannot be incorporated in the Miller reference without further teachings only found in applicant's invention.

[fol. 3962] The Aronson *et al.* reference merely discloses an embroidery machine having a single cam which is tracked by a cam follower connected with a swinging needle. No teaching is found in the Aronson *et al.* reference which would permit one to modify either the Miller or Magowan devices so as to anticipate applicant's invention.

Claim 22 specifically differentiates from the art of record in that it calls for a manually operable member carried within the sewing machine frame and having a portion positioned adjacent to and movable with the cam follower for withdrawing the cam-engaging head from and radially of a selected cam surface. This claim also calls for a handle formed on the member and extending outside the confines of the frame. Manifestly, such a construction is not disclosed or suggested in any of the prior art references. In counter-distinction to the Miller device, claim 22 further calls for means releasably locking the cam-engaging head and selected cam surface against movement relative to each other lengthwise of the common cam axis during the normal operation of the machine. Clearly, in the Miller machine the follower 67 must be free at all times during the normal operation of the machine to traverse the cam series under guidance of the timing cam 89 so as to perform the avowed purpose of the Miller machine.

Claim 23 differentiates from claim 22 in that it specifically calls for means enabling a selected cam of the series to be shifted lengthwise of the common axis and disposed in operative engagement with the single cam-engaging head.

Claim 24 differs from claims 22 and 23 in that it specifically sets forth that the series of cams are operatively connected with the needle swinging means including a constantly rotatable eccentric whereby the patterns of lateral [fol. 3963] swinging movements imparted to the needle by the eccentric are automatically varied.

It is respectfully submitted that the claims as now presented are in condition for allowance and such action is respectfully requested at the Examiner's convenience.

Respectfully submitted, Chester A. Williams, Jr.,
Attorney.

[fols. 3964-3965] DEPARTMENT OF COMMERCE

United States Patent Office

Washington

Forwarded to Exr. of Interferences from Div. 24

Franklin/md

U. S. Patent Office, August 22, 1956. Mailed.

Applicant: Carl Harris
Ser. No.: 516,058
Filed: June 16, 1955
For: Embroidering Mechanism for Zigzag Sewing Machines

Joel G. Stanford
The Singer Mfg. Co.
Elizabeth F, New Jersey

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

The case referred to above is forwarded to the Examiner of Interferences because it is adjudged to interfere with other cases hereafter specified. The question of priority will be determined in conformity with the Rules of Practice. The interference will be identified as No. 88212.

On or before October 15, 1956, the preliminary statement demanded by Rules 215 et seq. must be filed in a sealed envelope bearing the name of the party filing it and the number and title of the interference. The subject matter involved in the interference is presented in claim 22 of this Reissue application.

Your application, above identified, is a Reissue application of Patent No. 2,693,778, granted No. 9, 1954, on application filed June 9, 1952, No. 292,468.

The interference involves your application and:

An application filed by Fritz Gegauf, whose post-office address is Steckborn, Switzerland, whose attorney is Leon M. Strauss, 535 5th Avenue, New York 17, New York, and whose assignee is Fritz Gegauf Aktiengesellschaft, Bernina-Nahmaschinenfabrik, Steckborn, Switzerland.

The relation of the count of the interference to the claims of the respective parties is as follows:

Count	Gegauf	Harris
1	23	22

After termination of the interference this application will be held subject to further examination under Rule 266.

Thomas J. Hickey, Examiner.

Count compared:

[fol. 3966] U. S. Patent Office

Division 24

June 14, 1957.

Application of Carl Harris

Serial: No. 516,058,
Filed: June 16, 1955, Embroidering Mechanism for Zigzag Sewing Machines.

107 Trumbull Street,
Elizabeth F, N. J.,
June 10, 1957.

The Hon. Commissioner of Patents, Washington, D. C.

Sir:

Supplemental Amendment

This amendment is supplemental to applicant's prior amendment mailed to the United States Patent Office on or about May 11, 1956.

Please amend the above identified application as follows:

Add the following claim:

7. An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising a hollow frame, a needle pivotally carried by the frame and mounted for endwise reciprocation and for lateral swinging movements, a first rotary shaft mounted hori-

zontally in the frame for reciprocating the needle, means for rotating the shaft, a second shaft carried vertically by the frame, gears connecting the first and second shafts whereby the second is driven by the first, a third shaft carried by the frame in parallelism with and at a location below the first shaft, gears connecting the second and third shafts whereby the third is driven by the second, a series of rotary cams having different stitch patterns carried by [fol. 3967] and rotatable with the third shaft, a cam follower, means mounting the cam follower in the frame at a location beneath the first shaft for movement radially of the third shaft, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of the series, means enabling a selected cam to be engaged by the single cam-engaging head, spring means normally urging the single cam-engaging head into engagement with the selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement relative to each other lengthwise of the third shaft during the normal operation of the machine, manually operable means disposed adjacent to and movable with the cam follower for withdrawing the cam-engaging head from and radially of a selected cam surface, said last mentioned means including a horizontal rod reciprocatingly mounted in the frame with a portion thereof extending outside the confines of the frame and with a knob provided upon the exposed end of the rod for imparting reciprocating movements thereto, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the third shaft after the cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of the series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with the needle at a point spaced from the pivot and its other end operatively connected with the other end of the single cam-engaging head thereby to impart lateral swinging movement to the needle in response to the surface of the selected cam.

Cancel claim 22.

Remarks

Claim 22 has been cancelled from this application in [fol. 3968] view of the fact that The Singer Manufacturing Company, as assignee of the entire interest in this application, on or about March 15, 1957 abandoned the single count involved in Interference No. 88,212, which count corresponded to claim 22.

Claim 25 has been added to the application in order more adequately to define and protect applicant's invention. Claim 25 is based upon applicant's cancelled claim 22 but it contains additional subject matter which patentably distinguishes this claim over the subject matter defined in the single count of the above noted interference and over the disclosure contained in the U.S. application of Fritz Gegauf, Serial No. 358,377, filed May 29, 1953, which application was involved in such interference.

More specifically, claim 25 defines applicant's ornamental stitch machine as including a first rotary shaft mounted horizontally in the frame, a second shaft carried vertically by the frame, gears connecting the first and second shafts whereby the second is driven by the first, a third shaft carried by the frame in parallelism with and at a location below the first shaft, gears connecting the second and third shafts whereby the third is driven by the second and a series of rotary cams having different stitch patterns carried by and rotatably with the third shaft. Also, this claim specifically defines the cam follower as being mounted in the frame at a location beneath the first shaft. It is manifest that such a cam actuating construction is not disclosed in the above noted Gegauf application nor in any of the patents of reference.

In addition to the above, the present claim 25 specifically defines applicant's cam follower withdrawing means in a manner which completely differentiates such structure from that shown in the Gegauf application or as shown in the patent references. More specifically, this cam fol- [fols. 3969-3971] lower withdrawing means as defined in claim 25 includes a horizontal rod reciprocatingly mounted in the frame with a portion thereof extending outside the confines of the frame and with a knob provided by the exposed end of the rod for imparting reciprocating movements thereto. It is submitted that applicant's claim 25

patentably distinguishes the subject invention from all of the art of record including the Gegauf application.

Claim 23 distinguishes applicant's invention from the Gegauf structure in that it calls for means enabling a selected cam of the series to be shifted lengthwise of the common cam axis so as to be disposed in operative engagement with the cam-engaging head.

Claim 24 also distinguishes applicant's invention from the Gegauf structure in that it calls for means including a constantly rotatable eccentric for imparting swinging movements to the needle. In addition, this claim calls for a series of cams carried by the frame of which any one of the cams may be adapted for actuating the cam follower, and means operatively connecting the cam follower with the needle-swinging means whereby the patterns of lateral swinging movements imparted to the needle by the rotating eccentric are automatically varied. Clearly no such combination of rotary eccentric and rotary cams is disclosed or suggested in the Gegauf application.

It is believed that all of the claims now remaining in this application define patentable matter over the patented art of record as well as over the structure disclosed in the Gegauf application and thus, the Examiner is respectfully requested to allow each of these claims and to pass this case to issue at an early date.

Respectfully submitted, Chester A. Williams, Jr.,
Attorney.

[fols. 3972-3979] U. S. DEPARTMENT OF COMMERCE

United States Patent Office

Washington

U. S. Patent Office, August 26, 1957, Mailed

Joel G. Stanford
The Singer Mfg. Company
Elizabeth F, New Jersey

Notice of Reissue Allowance

The application for reissue of the patent identified below has been examined and allowed.

Applicant: Carl Harris (Assor.)

Patent Number: 2,693,778

Reissue Filing Date: June 16, 1955

Serial Number: 516,058

Title of Invention or Improvement: Embroidering Mechanism for Zigzag Sewing Machines

Number Claims Allowed in Reissue: 7

The patent will be reissued and forwarded on the date indicated below.

By direction of the Commissioner.

T. J. Hickey, Examiner.

Reissue Date: Patent, October 8, 1957. Will Issue.

[fol. 4088] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 175

DEPARTMENT OF COMMERCE

United States Patent Office

Washington

Leon M. Strauss
535 5th Avenue
New York 17, New York

Applicant: Fritz Gegauf
Ser. No.: 358,377
Filed: May 29, 1953
For: Sewing Machine

Jan. 16, 1956

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

Responsive to amendment filed Nov. 2, 1955.

The following claim, found allowable, is suggested for the purpose of interference. Applicant should make same by February 20, 1956 under the provisions of Rule 203; failure to do so will be considered a disclaimer of the subject matter involved:

A sewing machine comprising, a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common

cam axis thereby to effect a complete traverse of said series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

The time limit for making the claim expires Feb. 20, 1956.

Thomas J. Hickey, Examiner.

JFranklin:md

[fol. 4089] In the United States Patent Office

February 17, 1956.

(#4249)

Applicant: Fritz Gegauf
Ser. No.: 358,377
Filed: May 29, 1953
For: Sewing Machine
Div.: 24

Hon. Commissioner of Patents, Washington 25, D.C.

Sir:

This is in response to Office Communication dated January 16, 1956.

Please add to this case the following claim:

[fols. 4090-4091] 22. A sewing machine comprising, a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams carried by said frame and mounted about a common axis, means connected with said shaft for rotating

said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis thereby to effect a complete traverse of said series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

[fol. 4092] DEPARTMENT OF COMMERCE

United States Patent Office

Washington

Mailed June 1, 1956, Patent Division 24

Leon M. Strauss
535 5th Avenue
New York 17, New York

Applicant: Fritz Gegauf
Ser. No.: 358,377
Filed: May 29, 1953
For: Sewing Machine

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

Responsive to amendment filed Feb. 16, 1956.

Additional references applied:

Miller	1,033,721	July 23, 1912	112/65
Bitzer	2,005,070	June 18, 1935	112/158 xr
Jenni	2,007,863	July 9, 1935	112/116
Magowan (Br.)	19,184	Sept. 12, 1908	112/158

(2 shts. dwg. 4 pp. spec.)

This application now contains claims 15-22 inclusive.

Claim 23, suggested for the purpose of interference has been renumbered claim 22.

Claim 15 is rejected as being obviously fully met by Magowan, cited above.

Claims 16, 20 and 21 are rejected as lacking invention over Magowan in view of Jenni, both cited above. The patent to Jenni discloses the expedient of providing a sewing machine with a series of cams and shiftable follower 34, 65 etc., Figures 1 and 9 for varying the field of stitching. In view of the above teaching, to modify the shiftable follower *d* of Magowan as suggested by Jenni would not involve invention but mere mechanical skill.

Claim 17 is rejected as lacking invention over Magowan in view of Bitzer. To construct the cam follower of Ma-

gowan as suggested by the follower, Figure 5 of Bitzer would not involve invention but mere mechanical skill. The cut-out portion of lever 43, Figure 5 of Bitzer is considered a slot and applicant has not distinguished therefrom.

[fol. 4093] In view of the newly discovered art, claim 23 (now renumbered claim 22) formerly considered allowable and suggested for the purpose of interference is rejected as being fully met by the patent to Miller, cited above. Miller discloses a sewing machine comprising a frame 3, a zig-zag needle 62, a rotary shaft 4 and means for rotating said shaft, a series of rotary cams 75-77 inclusive, means 7, etc. for rotating said cams about a common axis, a cam follower 68 having a single cam-engaging head, means 88 enabling a selected cam to be engaged, means urging said cam-engaging head into engagement with a selected cam surface, means 90 engageable with said follower for withdrawing said cam-engaging head and a pitman 66 as claimed.

The following claim, found allowable, is suggested for purpose of interference. Applicant should make same by July 2, 1956 under the provisions of Rule 203; failure to do so will be considered a disclaimer of the subject matter involved:

> An ornamental stitch sewing machine for selectively producing a plurality of different stitch patterns and comprising, a hollow frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower, means mounting said cam follower in said frame for movement radially of said common axis, said follower having a single cam-engaging head with its one end engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said single cam-engaging head, spring means normally urging said single cam-engaging head into engagement with said selected cam surface, means releasably locking said cam-engaging head and said selected cam surface against movement

relative to each other lengthwise of said common cam axis during the normal operation of the machine, a manually operable member carried within said frame and having a portion positioned adjacent to and movable with said cam follower for withdrawing said cam-engaging head from and radially of said selected cam surface, a handle formed on said member and extending [fols. 4094-4218] outside the confines of said frame, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis after said cam follower has been withdrawn radially from a selected cam thereby to effect a partial or a complete traverse of said series of rotary cams whereby the single cam-engaging head can be manually engaged with one cam after the other in any desired sequence, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with the other end of said single cam-engaging head thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

In the event applicant makes the above suggested claim in the present application and co-pending application serial number 435,832 he is required to elect which one of the applications shall be placed in interference. Note Rule 78(b).

Claims 18 and 19 are withdrawn from further consideration under Rule 142(b) as not readable on the elected species.

Thomas J. Hickey, Examiner.

JFranklin/md

[fols. 4219-4344] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 177-(S-16)

March 17, 1959 F. GEGAUF 2,877,726

ZIG-ZAG SEWING MACHINES

Original Filed May 29, 1953 4 Sheets-Sheet 1

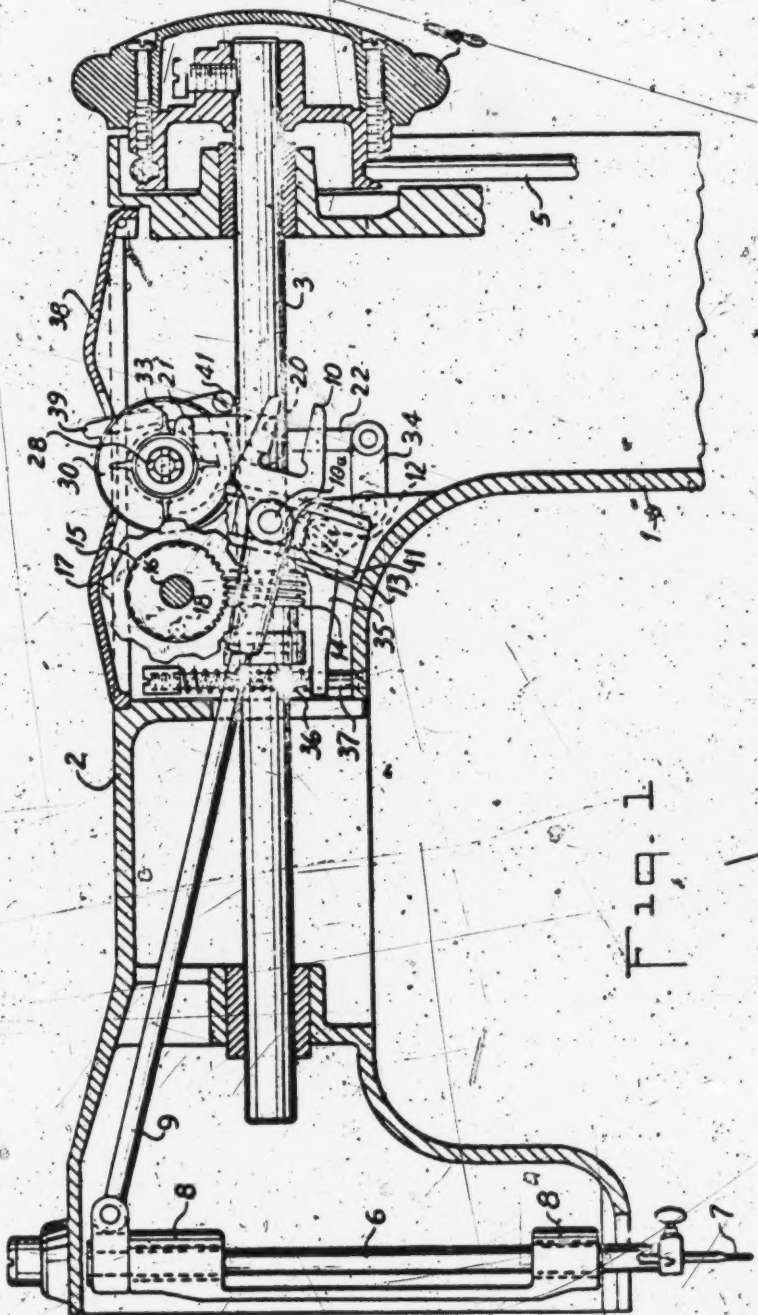


Fig. 1

INVENTOR.
FRITZ GEGAUF
BY Leon M. Strauss

March 17, 1959 F. GEGAUF 2,877,726

ZIG-ZAG SEWING MACHINES

Original Filed May 29, 1953 4 Sheets-Sheet 2

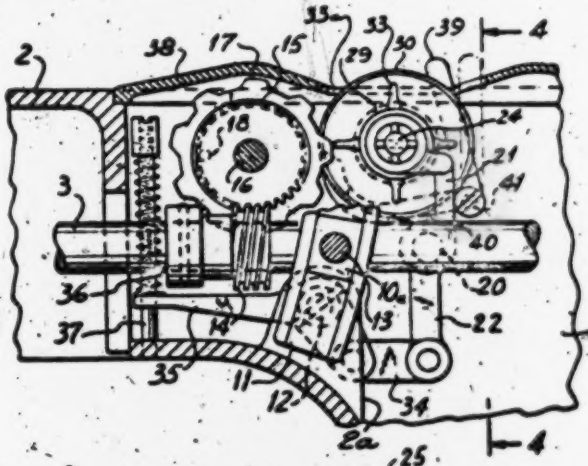


Fig. 2

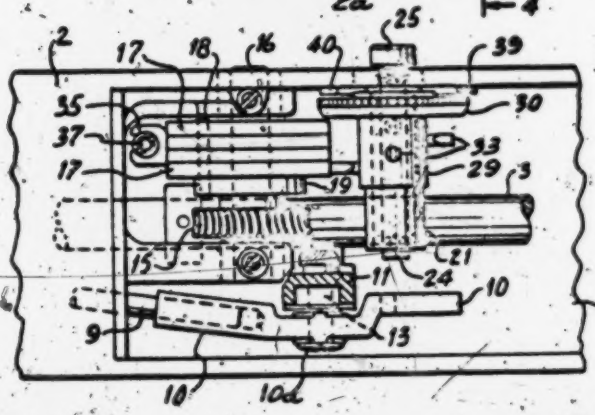


Fig. 3

Fig. 8

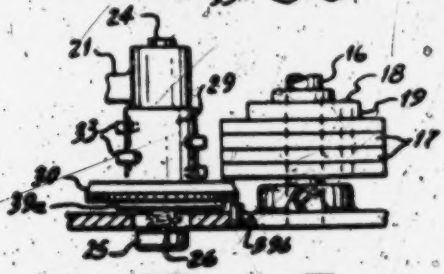
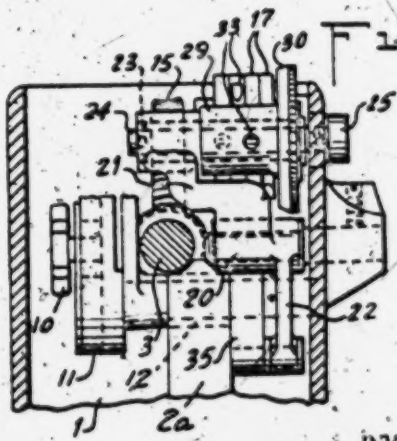


Fig. 9

Fig. 4



INVENTOR
FRITZ GEGAUF
BY Leon M. Strauss

March 17, 1959 F. GEGAUF 2,877,726

ZIG-ZAG SEWING MACHINES

Original Filed May 29, 1953 4 Sheets-Sheet 3

Fig. 5

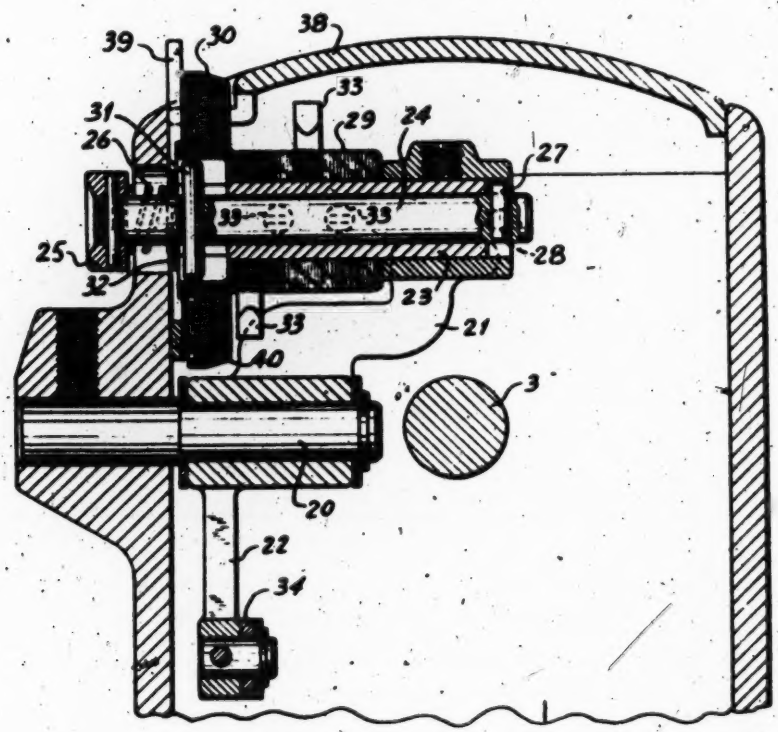


Fig. 6

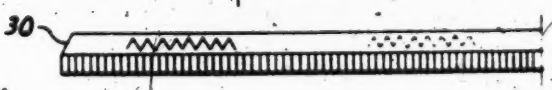
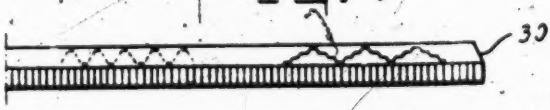


Fig. 7



INVENTOR
FRITZ GEGAUF
BY Leon M. Strauss
ATT.

March 17, 1959 F. GEGAUF 2,877,726

ZIG-ZAG SEWING MACHINES

Original Filed May 29, 1953 4 Sheets-Sheet 4

Fig. 10

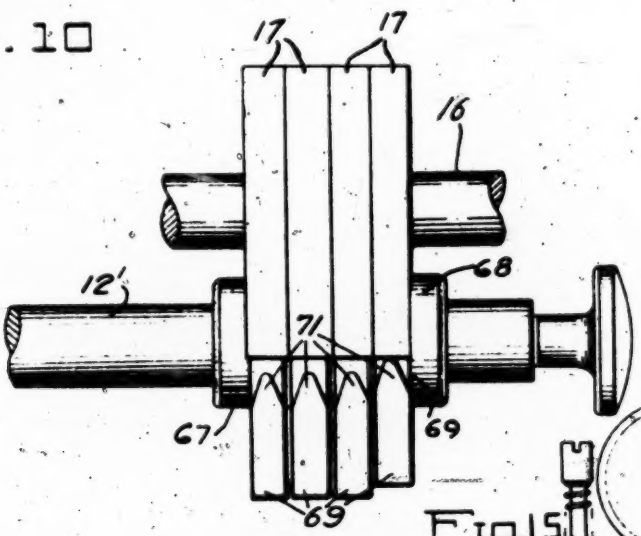


Fig. 15

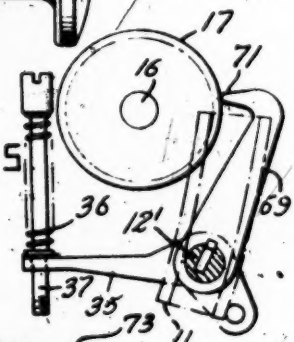


Fig. 11

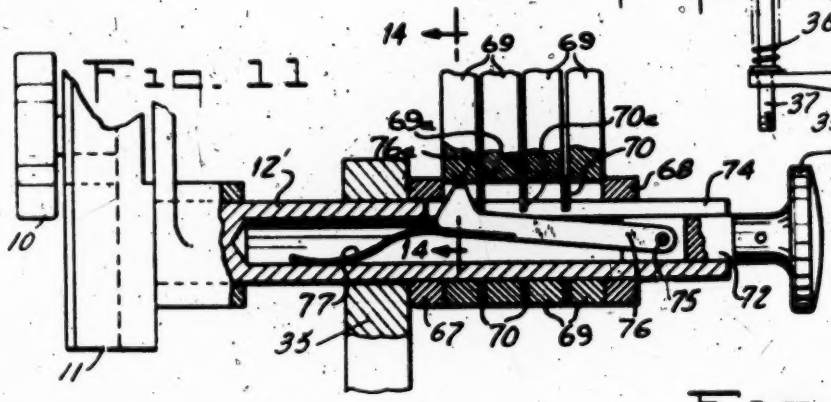


Fig. 14

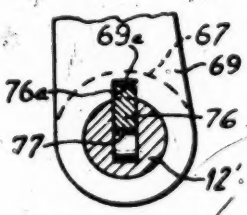
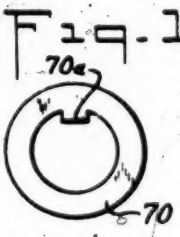


Fig. 12



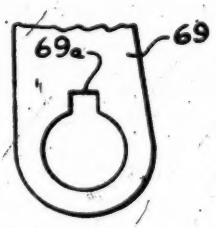


Fig. 13

INVENTOR
FRITZ GEGAUF

BY Lucas M. Strauss atty.

United States Patent Office 2,877,726 Patented Mar. 17, 1959

2,877,726

ZIG-ZAG SEWING MACHINES

Fritz Gegauf, Steckborn, Switzerland, assignor to The Singer Manufacturing Company, a corporation of New Jersey

Original application May 29, 1953, Serial No. 358,377, now Patent No. 2,832,302, dated April 29, 1958. Divided and this application December 2, 1957, Serial No. 700,079

The terminal portion of the term of the patent subsequent to October 22, 1974, has been disclaimed

20 Claims. (Cl. 112—158)

The present invention relates to sewing machines, and more particularly to a sewing machine adapted for zig-zag stitch patterns, and is a divisional application of the application of Fritz Gegauf for United States patent filed on May 29, 1953, Serial Number 358,377 now United States Patent Number 2,832,302 for Sewing Machine.

Conventionally zig-zag sewing machines include a needle bar guide which is longitudinally reciprocable and oscillatable transversely of the direction of reciprocation of the needle bar. Interchangeable cam members for oscillating the needle bar guide are employed to permit various stitch patterns to be obtained. However, the interchange of the cam members is troublesome and time wasting inasmuch as conventionally, the cam members are lodged within the hollow arm of the frame post of the sewing machine, normally closed by a hinged cover with the cam members being somewhat difficult to reach. Further, since the cam members must be lubricated they are often oily and the handling thereof may eventually result in the oil rubbing off on the hands of the user with possible eventual soiling of material to be stitched. Additionally, the cam members are comparatively small and may be easily lost. Accordingly, it is a primary object of the present invention to eliminate the necessity of interchanging the cam members each time another stitch pattern is to be selected.

The concept of this invention features the use in a sewing machine of a drive shaft on which a plurality of cam discs are mounted. There is provided oscillatable means in driving connection with the needle bar guide of the sewing machine which oscillatable means is oscillated selectively by one of the cam discs. Incorporated in the invention is means for selectively employing in any desired sequence each of the cam discs with its associated follower.

A push button actuator is employed for enabling the selected employment of each cam disc and its associated cam follower.

The cam discs may be permanently or removably mounted on the drive shaft, it being noted that the arrangement of the several cam discs enables the invention to carry out one of its more important objects, that is, enabling the sewing machine to produce hundreds of desirable stitch patterns without necessitating the removal or replacement of parts.

A further object of the invention is to enable the user of the sewing machine to change the stitch pattern being employed by merely pushing a push button and rotating the push button to a further selected position.

An additional object of the invention resides in the provision of means facilitating convenient actuation of sewing machine parts for the production of any desirable zig-zag stitch pattern and the complete disengagement of the parts for allowing ordinary sewing operations.

Still another feature of the invention is to provide means allowing the user of the sewing machine to readily observe the particular stitch pattern employed.

Yet a further object of the present invention is to

provide means conducive to easy and convenient switching over from one stitch pattern to another stitch pattern while the machine is in operation, push buttons, keys or other simple elements being employable to bring about instantaneous changes in the operation of the sewing machine.

A further object of the present invention is to provide means contributing to a compact sewing machine whose parts are easily accessible, may be readily interchanged, if desired and ensure always precise functioning of the sewing machine during its various operational steps.

The above and other objects of the invention will become further apparent from the following detailed description, reference being made to the accompanying drawings showing preferred embodiments of the invention.

In the drawings:

Fig. 1 is a longitudinal sectional view of an upper part of a sewing machine constructed in accordance with the present invention exposing control means for the needle;

Fig. 2 is a fragmentary longitudinal sectional view of a detail of the sewing machine seen in Fig. 1;

Fig. 3 is a partial top plan view of the machine shown in Fig. 2, with parts thereof shown in section for the sake of clarity;

Fig. 4 is a partial vertical sectional view taken along the lines 4—4 of Fig. 2;

Fig. 5 is an enlarged detailed sectional view further illustrating the structure shown in Fig. 4 and looking at an opposite side thereof;

Figs. 6 and 7 show in development halves of the periphery of the knurled flange on the adjustable control means with stitch patterns engraved or otherwise formed thereon;

Fig. 8 is a side elevational view of a modified form of the disengaging device employable in the invention;

Fig. 9 is a plan view of the modified form of the disengaging device employable in the invention, with parts thereof being shown in section;

Fig. 10 is a plan view of a further form of the disengaging device for use in the invention equipped with a plurality of cam followers, selectively coupleable to an oscillatable shaft;

Fig. 11 is a vertical sectional view of Fig. 10;

Fig. 12 illustrates the shape of a washer;

Fig. 13 is a partial elevational view of one of the levers; and

Fig. 14 is a partial sectional view taken along line 14—14 in Fig. 11.

Fig. 15 is a schematic view illustrating a left-hand elevation of the mechanism shown in Figs. 10 and 11.

Referring now to the accompanying drawings, wherein like reference numerals designate similar parts throughout the various views, reference numeral 2 designates the hollow arm of a sewing machine according to the invention and integrally formed with the frame post 1. An upper drive shaft 3 is supported in arm 2. The shaft 3 carries a conventional handwheel 4 and is movable by a transmission element 5.

The needle bar 6 has imparted thereto a reciprocating up-and-down motion by drive means (not shown) of conventional construction. The needle bar 6 carries the sewing needle 7 and is movably guided in a suitable frame 8 which receives its oscillatory motion from a bar 9. The bar 9 is an extension of link member 10 which is pivotally mounted on a pin 11.

The needle bar 6 receives by the oscillatory motion from the bar 9 the transverse motion necessary for producing a zig-zag stitch pattern. The amplitude of this transverse motion is variable from zero to a predetermined upper limit. A block 13 is provided to determine the upper limit and is slidably mounted in a guide lever

A flat coupling lever 76 is articulated on a transverse pin 75 within the bifurcated inner end of slide 72. The free end 76a of lever 76 forms a coupling head having opposite sloping faces. A leaf spring 77 fixed to the lever 76 urges the lever 76 into a position where the coupling head 76a projects outwardly through the slot 74, so that by axial displacement of the slide 72, by means of the hand knob 73, any one of the four cam-followers 69 can be angularly coupled to the shaft 12', as the coupling head 76a engages the radial recess of one of the cam-followers 69.

Thus, the oscillating motion which is imparted to each cam-follower 69 by its corresponding cam disc 17 is transmitted to the shaft 12' and to the guide lever carried thereby. When the slide 72 is axially displaced lengthwise of the shaft 12', the coupling lever 76 is retracted by the sloping face of its coupling head 76a as the coupling head 76a meets the integrally projecting tongue 70a of any of the washers 70 in its way, so that the coupling head 76a may contact any of the other cam-followers 69 as desired, after which the knob 73 is axially rotated so that the head 76a may properly engage the slot 69a of the selected follower 69.

From the above it is to be understood that the form of the invention shown in Figs. 10 to 15, like that shown in Figs. 1 to 9, comprises a plurality of spaced cam discs 17 mounted adjacent each other on the shaft 16 for rotation therewith, an axially adjustable cylinder 29 (Fig. 5) or 12' (Fig. 11), a plurality of spaced cam followers 33 or 71 on the control cylinder engageable with the cam discs, the cam followers being axially offset from each other, an oscillating lever 22 (Fig. 3) or 11—12' (Fig. 10) operatively engaging the control cylinder, and oscillatable means 9, 10 and 13 operatively connecting the oscillating lever 22 (Fig. 2) or 11—12' (Fig. 10) with the needle bar guide 8 so that upon axially adjusting the control cylinder to engage one of the cam followers with one of the cam discs, rotation of the shaft 16 causes oscillation of the needle bar guide 8 in accordance with the contour of the surface of one cam disc.

It is to be understood that when the modified form of the present invention, as illustrated in Figs. 10–15, is applied in the sewing machine arm 2, illustrated in Figs. 1–4, the shaft 12', shown in Figs. 1–4, has its one end modified in the manner as is disclosed in Figs. 10–15, with the modified shaft designated as 12' so as properly to accommodate the cam followers 71—71. These cam followers 71—71 may selectively engage the rotary cams 17—17 to the end that the shaft 12' is oscillated about its longitudinal axis and thereby actuates the guide lever 11 which is rigidly carried upon the shaft 12'.

Thus, it is manifest that the modified version of the present invention disclosed in Figs. 10–15 is substituted completely for the control cylinder 29 with its accompanying mechanism including the bell crank lever 21—22, supporting shaft 20 and connecting link 34. However, the angle lever 35 with its associated compression spring 36 and rod 37 is retained so that the shaft 12' will be oscillated about its longitudinal axis in one direction by the rotary cams 17 and in the other direction by the spring 36.

Referring to Figs. 1 to 9, inclusive, it can be seen that there has been provided a zig-zag sewing machine comprising a hollow arm 2 with a needle bar guide 8 therein. A needle bar 6 is longitudinally reciprocable in the needle bar guide for imparting reciprocal motion to a needle 7 mounted on the needle bar, and there is a rotatable shaft 16 within the hollow arm 2, a plurality of spaced cam discs 17 mounted adjacent each other on the shaft 16 for rotation therewith, an axially adjustable control cylinder 29, as well as a plurality of spaced cam followers 33 on the control cylinder 29 engageable with said cam discs.

The cam followers 33 are axially offset from each other, and an oscillating lever 21, 22 operatively engages the control cylinder 29, and oscillatable means 9, 10, 10a, 13 operatively connecting the oscillating lever 21, 22 with the needle bar guide 8 so that upon axially adjusting the control cylinder 29 to engage one of the cam followers 33 with one of the cam discs 17, rotation of the shaft 16 causes oscillation of the needle bar guide 8 in accordance with the contours of the surface of the cam disc 17 being engaged by the cam follower 33.

Referring to Figs. 1 to 15, it is to be understood that the invention broadly includes a plurality of differently shaped cams 17 each mounted for rotation about an axis 16 fixed by the frame 2, means 14 and 15 rotating the cams about their axes, a plurality of cam-responding elements 33 or 71 each corresponding to a respective one of the cams 17, means 29 or 12' mounting each of the cam-responding elements 33 or 71 upon the frame for movements relative to the frame in response to the rotation of the cam associated with such element and permanently aligning each of such elements in radial relation with its associated cam, means 9 to 13 for connecting each of the cam-responding elements with the member 7 to be controlled, and operator-responsive means 25 or 73 connected with each of the cam-responding elements for releasably connecting each element in cam-responding relation with its associated cam whereby the member 7 to be controlled can be sequentially connected in operative relation with each of the cams 17.

More specifically, the present invention includes a plurality of differently shaped cams 17 each mounted for rotation about an axis 16 fixed by the frame 2, means 14 and 15 rotating the cams about their axes, a lever 22 or 11—12' pivotally mounted about an axis fixed by the frame, a plurality of cam-responding elements 33 or 71 each corresponding to a respective one of the cams 17, means 29 or 69 mounting the cam-responding elements upon the lever for movements relative to the lever, manually operable means 25 or 73 carried by the lever for releasably locking each of the elements against movement relative to the lever and in cam-responding relation with its associated cam whereby the lever 22 or 11—12' may be pivoted about its axis in conformance with the selected cam response of any element, and means 9, 10, 11 and 13 connecting the lever with the member to be controlled.

Thus, in both forms of the invention the cam-responding elements 33 or 71 are, in effect, carried upon a lever 22 or 11—12' which is pivotally mounted upon the machine frame.

Further it is apparent that there has been disclosed novel push button 25 actuated means for selectively positioning the control cylinder 29 to bring a selected cam follower 33 into engagement with a selected cam disc 17.

Various changes and modificaitons may be made without departing from the spirit and scope of the present invention and it is intended that such obvious changes and modifications be embraced by the annexed claims.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. In a zig-zag sewing machine having a frame casing, a needle bar guide in said casing, a needle bar longitudinally reciprocable in said needle bar guide for imparting reciprocal motion to a needle when mounted on said bar, and means for oscillating said needle bar guide; a rotatable first shaft, a plurality of spaced cam discs mounted adjacent each other on said shaft for rotation therewith, a hollow second shaft provided with a longitudinal slot and extending substantially parallel to said first shaft, said second shaft being operatively connected with said oscillating means, a plurality of cam follower levers movable about said second shaft and overlying said slot, a spring-urged coupling lever positioned within said second shaft, knob means operatively connected with said coupling lever and extending exteriorly of the hollow of said second shaft and said casing, said knob means being rotatable and longitudinally displaceable

relative to said second shaft so that longitudinal displacement of said knob means serves to engage said coupling lever with one of said cam follower levers and so that rotational displacement of said knob serves to engage said one cam follower lever with its respective cam disc, whereby the contours of the surface of said one cam member will be converted to a predetermined oscillatory pattern of said second shaft, and in turn of said needle bar and needle carried thereby.

2. A zig-zag sewing machine comprising a hollow arm, a needle bar guide in said hollow arm, a needle bar longitudinally reciprocable in said needle bar guide for imparting reciprocal motion to a needle mounted on said needle bar, a rotatable shaft within said hollow arm, a plurality of spaced cam discs mounted adjacent each other on said shaft for rotation therewith, an axially-adjustable control cylinder, a plurality of spaced cam followers fixed on said control cylinder engageable with said cam discs, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contours of the surface of said one cam disc, a pin slidable within said control cylinder, means for shifting the pin within the control cylinder and lock means adjustably locking said pin to said control cylinder in one of a plurality of selected axial control positions to hold said control cylinder in a selected position.

3. A zig-zag sewing machine comprising a hollow arm, a needle bar guide in said hollow arm, a needle bar longitudinally reciprocable in said needle bar guide for imparting reciprocal motion to a needle mounted on said needle bar, a rotatable shaft within said hollow arm, a plurality of spaced cam discs mounted adjacent each other on said shaft for rotation therewith, an axially adjustable control cylinder, a plurality of spaced cam followers fixed on said control cylinder engageable with said cam discs, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contours of the surface of said one cam disc, a pin slidable within said control cylinder, lock means adjustably locking said pin to said cylinder in one of a plurality of selected axial control positions to hold said control cylinder in a selected position, said pin having an end extending outwardly of said casing, a push button on said end of said pin, and a spring engaging said push button to urge said pin into engagement with said lock means, said push button when depressed disengaging said pin.

4. A zig-zag sewing machine comprising a hollow arm, a needle bar guide in said hollow arm, a needle bar longitudinally reciprocable in said needle bar guide for imparting reciprocal motion to a needle mounted on said needle bar, a rotatable shaft within said hollow arm, a plurality of spaced cam discs mounted adjacent each other on said shaft for rotation therewith, an axially adjustable control cylinder mounted within the hollow arm, a plurality of spaced cam followers fixed on said control cylinder engageable with said cam discs, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, and oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contours of the surface of said one cam disc, said hollow arm having an opening therein, a circular flange formed on said control cylinder and positioned with its periphery extending outwardly of said hollow arm through said opening thereby to afford means whereby the control cylinder may be manually adjusted.

5. An ornamental sewing machine for selectively producing a plurality of different stitch patterns and comprising a hollow arm, a needle pivotally carried by said hollow arm and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said hollow arm and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a rotatable control cylinder mounted in said hollow arm and having a plurality of spaced cam followers fixed thereto, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, and oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contour of the surface of said one cam disc.

6. An ornamental sewing machine for selectively producing a plurality of different stitch patterns and comprising a hollow arm, a needle pivotally carried by said hollow arm and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said hollow arm and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a rotatable control cylinder mounted in said hollow arm and having a plurality of spaced cam followers fixed thereto, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, and oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contours of the surface of said one cam disc, said hollow arm having an opening therein, said control cylinder having a flange thereon, said flange extending outwardly of said hollow arm through said opening.

7. An ornamental sewing machine for selectively producing a plurality of different stitch patterns and comprising a hollow arm, a needle pivotally carried by said hollow arm and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams having different stitch patterns carried by said hollow arm and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a rotatable control cylinder mounted in said hollow arm and having a plurality of spaced cam followers fixed thereto, said cam followers being axially offset from each other, an oscillating lever operatively engaging said control cylinder, and oscillatable means operatively connecting said oscillating lever with said needle bar guide so that upon axially adjusting said control cylinder to engage one of said cam followers with one of said cam discs, rotation of said shaft causes oscillation of said needle bar guide in accordance with the contours of the surface of said one cam disc, said control cylinder being movable with respect to said shaft, disengaging means contacting said control cylinder to move said control

cylinder to disengage and space all of said cam followers from all of said cam discs.

8. A control mechanism for an ornamental stitch sewing machine having a frame and a member in the frame to be controlled by the mechanism, comprising a plurality of differently shaped cams each mounted for rotation about an axis fixed by the frame, means rotating the cams about their axes, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting each of the cam-responding elements upon the frame for movements relative to the frame in response to the rotation of the cam associated with such element and permanently aligning each of such elements in radial relation with its associated cam, means connecting each of the cam-responding elements with the member to be controlled, a single unitary operator-responsive handle, means shiftably mounting the handle upon the frame, means operatively connecting such handle with each of the cam-responding elements for releasably connecting each element in cam-responding relation with its associated cam whereby the member to be controlled can be sequentially connected in operative relation with each of the cams in response to the operator-propelled movements of the handle, and means releasably locking a selected cam-responding element in operative relation with its associated cam during the normal operation of the machine.

9. An ornamental stitch sewing machine comprising, a frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of differently shaped cams each mounted for rotation about an axis fixed by the frame, means rotating the cams about their axes in synchronism with the reciprocating movements of the needle, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting each of the cam-responding elements upon the frame for movements relative to the frame in response to the rotation of the cam associated with such element and permanently aligning each of such elements in radial relation with its associated cam, means connecting each of the cam-responding elements with the needle for shifting the latter sidewise, a single unitary operator-responsive handle, means shiftably mounting the handle upon the frame, means operatively connecting such handle with each of the cam-responding elements for releasably connecting each element in cam-responding relation with its associated cam whereby the needle can be sequentially connected in operative relation with each of the cams in response to the operator-propelled movements of the handle, and means releasably locking a selected cam-responding element in operative relation with its associated cam during the normal operation of the machine.

10. A control mechanism for an ornamental stitch sewing machine having a frame and a member in the frame to be controlled by the mechanism, comprising a plurality of differently shaped cams each mounted for rotation about an axis fixed by the frame, means rotating the cams about their axes, a lever pivotally mounted about an axis fixed by the frame, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting the cam-responding elements upon the lever for movements relative to the lever, manually operable means carried by the lever for releasably locking each of the elements against movement relative to the lever and in cam-responding relation with its associated cam whereby the lever may be pivoted about its axis in conformance with the selected cam response of any element, and means connecting the lever with the member to be controlled.

11. An ornamental stitch sewing machine comprising a hollow frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of cylindrical rotary cams mounted within the frame for rotation about a common axis fixed by the frame, means rotating the cams about their common axis, a lever pivotally mounted within the frame and about an axis fixed by the frame, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting the elements upon the lever for movements relative to the lever, spring means biasing the lever about its axis thereby to bias the elements toward the cams, operator-responsive means carried by the lever within the frame for releasably locking each of the elements against movement relative to the lever and in cam-responding relation with its associated cam whereby the lever may be pivoted about its axis in conformance with the selected cam response of any element, handle means formed on the operator-responsive means and extending outside the confines of the frame, and means connecting the lever with the needle for shifting the latter sidewise.

12. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, means connected to said needle for shifting the needle sidewise, a plurality of cylindrical rotary cams mounted upon said frame for rotation about a fixed common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-tracking elements of which each corresponds to a respective one of said cams for sensing and responding to its associated cam in response to the movements of the cam, means supporting each of said elements upon said frame for shifting movements relative to and independently of its associated elements, means permanently aligning each of said elements for sensing and responding to its associated cam only, a single unitary operator-responsive handle, means shiftably mounting the handle upon the frame, means operatively connecting such handle with each of the cam-tracking elements for releasably establishing an operative connection between said first-mentioned means and each of said elements whereby the needle may be sequentially connected in operative relation with each of the cams in response to operator-propelled movements of the handle, and means releasably maintaining an operative connection between the first mentioned means and a selected element during the normal operation of the machine.

13. A control mechanism for an ornamental stitch sewing machine having a frame and a member in the frame to be controlled by the mechanism, comprising a plurality of differently shaped cams each mounted for rotation about an axis fixed by the frame, means rotating the cams about their axes, a pluralify of cam-responding elements each corresponding to a respective one of the cams, an element-carrying means shiftably mounted upon the frame, means rotatably mounting the elements upon and about an axis fixed by the element-carrying means with the elements being fixed relative to each other and being spaced lengthwise along and angularly about such axis, spring means biasing the element-carrying means toward the cams, operator-responsive means connected with the elements for rotating them in unison about their common axis thereby sequentially to present each element to its associated cam, means releasably locking a selected element in cam-responding relation with its associated cam whereby such element together with the element-carrying means may be shifted relative to the frame in response to the movement of a selected cam, and means connecting the element-carrying means with the member to be controlled.

14. An ornamental stitch sewing machine comprising, a frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of differently shaped cams each mounted for rotation about a common axis fixed by the frame, means rotating the cams about the common axis in synchronism with the needle reciprocating

movements, a plurality of cam-responding elements each corresponding to a respective one of the cams, an element-carrying means shiftably mounted upon the frame, means rotatably mounting the elements upon and about an axis fixed by the element-carrying means with the elements being fixed relative to each other and being spaced lengthwise along and angularly about such axis, spring means biasing the element-carrying means toward the cams, operator-responsive means connected with the elements for rotating them in unison about their common axis thereby sequentially to present the elements to their associated cams, means releasably locking a selected element in cam-responding relation with its associated cam whereby such element together with the element-carrying means may be shifted relative to the frame in response to the movements of a selected cam, and means connecting the element-carrying means with the needle thereby to shift the latter sidewise.

15. An ornamental stitch sewing machine comprising, a frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of differently shaped cams each mounted for rotation about a common axis fixed by the frame, means rotating the cams about the common axis in synchronism with the needle reciprocating movements, a plurality of cam-responding elements each corresponding to a respective one of the cams, a lever pivotally mounted upon the frame, means rotatably mounting the elements upon and about an axis fixed by the lever in parallelism with the cam axis with the elements being fixed relative to each other and being spaced lengthwise along and angularly about their axis of rotation, spring means biasing the lever toward the cams, operator-responsive means connected with the elements for rotating them in unison about their common axis thereby sequentially to present the elements to their associated cams, means releasably locking a selected element in cam-responding relation with its associated cam whereby such element together with the lever may be shifted about the lever pivot axis in response to the movements of a selected cam, and means connecting the lever with the needle thereby to shift the latter sidewise.

16. An ornamental stitch sewing machine comprising, a frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of differently shaped edge cams mounted for rotation about a common axis fixed by the frame, means rotating the cams about the common axis in synchronism with the needle reciprocating movements, a plurality of cam-responding elements each corresponding to a respective one of the cams, a lever pivotally mounted at one end upon the frame about an axis disposed in parallelism with the cam axis, means rotatably mounting the elements upon and about an axis fixed by the other end of the lever in parallelism with the cam axis with the elements being fixed relative to each other in helically spaced relation about their rotary axis, and with each element extending radially of the rotary axis and being disposed in substantially the same plane as its associated cam, spring means biasing the lever toward the cams, operator-responsive means connected with the elements for rotating them in unison about their rotary axis thereby sequentially to present the elements to their associated cams, means releasably locking a selected element in cam-responding relation with its associated cam whereby such element together with the lever may be shifted about the lever pivot axis in response to the movements of a selected cam, and means connecting the lever with the needle thereby to shift the latter sidewise.

17. An ornamental stitch sewing machine comprising, a frame, a needle mounted in the frame for endwise reciprocation and sidewise movements transversely of the direction of reciprocation, an oscillatable lever pivotally mounted about an axis fixed by the frame, means

connecting the lever with the needle for shifting the latter sidewise, a plurality of cylindrical rotary edge cams mounted upon the frame for rotation about a fixed common axis, means rotating the cams in synchronism with the needle reciprocating movements, a plurality of cam-responding elements each corresponding to a respective one of the cams, means pivotally mounting each of the elements upon the lever and about a common axis fixed by the lever, spring means biasing the lever toward the cams, and manually operable means carried by the lever and shiftable lengthwise of the element pivot axis for releasably locking each of the elements against movement relative to the lever and in cam-responding relation with its associated cam whereby the needle may be shifted sidewise in conformance with a selected cam response of an element.

18. An ornamental stitch machine comprising a hollow frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, means to reciprocate the needle, a plurality of cylindrical rotary cams mounted within the frame for rotation about a common axis fixed by the frame, means rotating the cams about their common axis in synchronism with the reciprocating movements of the needle, a single member mounted within the frame for movements relative to the frame, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting the elements upon the member for movements relative to the member, operator-responsive means for sequentially and releasably locking each of the elements against movement relative to the member and in cam-responding relation with its associated cam whereby the member may be shifted relative to the frame in conformance with the selected cam response of any element, and means operatively connecting the member with the needle for shifting the latter sidewise.

19. An ornamental stitch machine comprising a hollow frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, means to reciprocate the needle, a plurality of cylindrical rotary cams mounted within the frame for rotation about a common axis fixed by the frame, means rotating the cams about their common axis, in synchronism with the reciprocating movements of the needle, a single member mounted within the frame for movements relative to the frame, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting the elements upon the member for movements relative to the member, operator-responsive means for sequentially and releasably locking each of the elements against movement relative to the member and in cam-responding relation with its associated cam whereby the member may be shifted relative to the frame in conformance with the selected cam response of any element, such operator-responsive means including a single handle element extending outside the confines of the frame and serving upon the manual movement thereof sequentially to position each of the elements in cam-responding relation with its associated cam, and means connecting the member with the needle for shifting the latter sidewise.

20. An ornamental stitch machine comprising a hollow frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, means to reciprocate the needle, a plurality of cylindrical rotary cams mounted within the frame for rotation about a common axis fixed by the frame, means rotating the cams about their common axis in synchronism with the reciprocating movements of the needle, a single member mounted within the frame for movements relative to the frame, a plurality of cam-responding elements each corresponding to a respective one of the cams, means mounting the elements upon the member for movements relative to the

member, operator-responsive means carried by the member within the frame for sequentially and releasably locking each of the elements against movement relative to the member and in cam-responding relation with its associated cam whereby the member may be shifted relative to the frame in conformance with the selected cam response of any element, handle means connected with the operator-responsive means and extending outside the confines of the frame, and means connecting the member with the needle for shifting the latter sidewise.

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ORNAMENTAL STITCH SEWING MACHINES

Filed Dec. 8, 1954 5 Sheets-Sheet 1

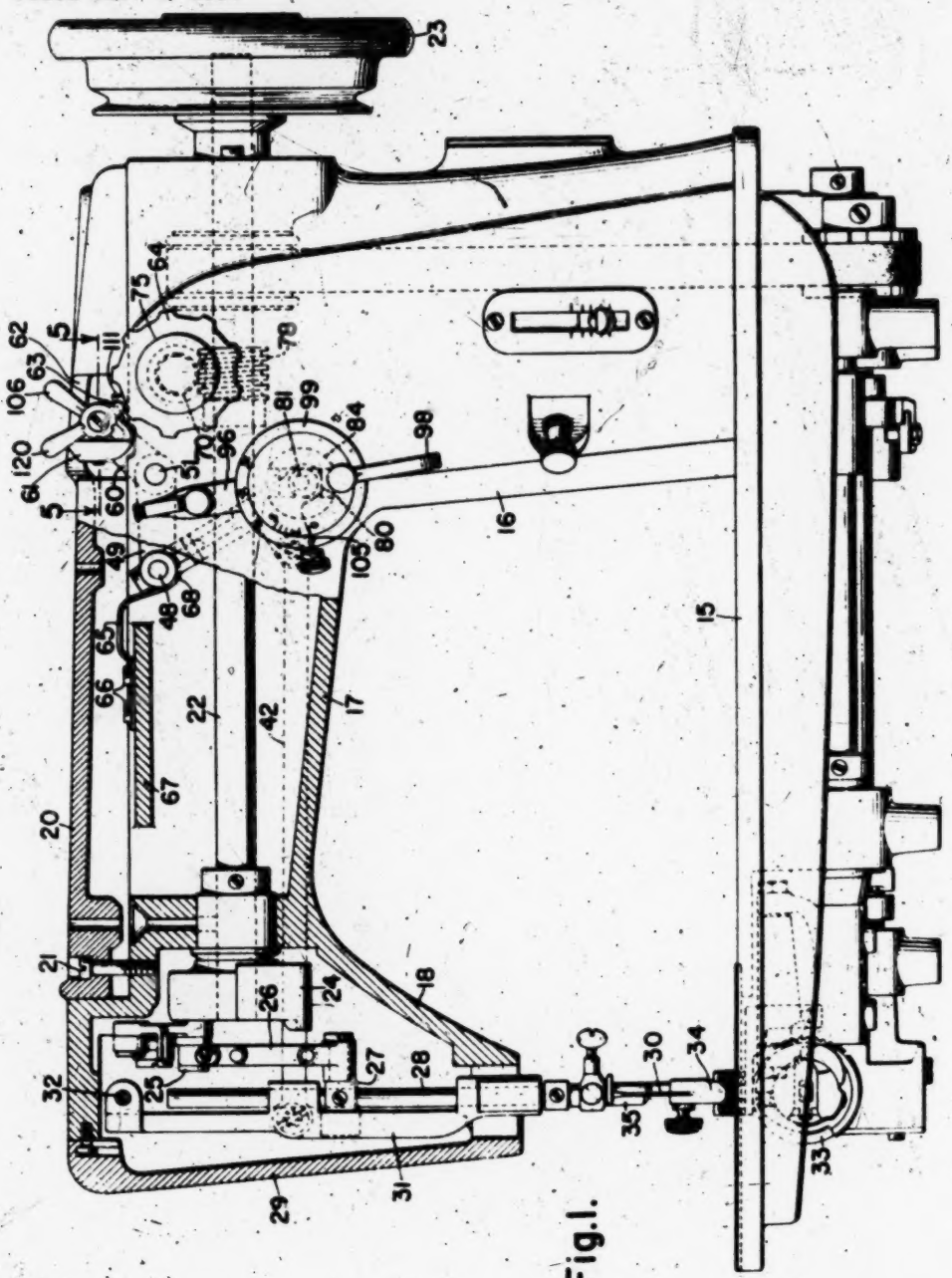

Fig.1.

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WITNESS

Oct. 22, 1957 M. R. PERLA 2,810,360

ORNAMENTAL STITCH SEWING MACHINES

Filed Dec. 8, 1954 5 Sheets-Sheet 2

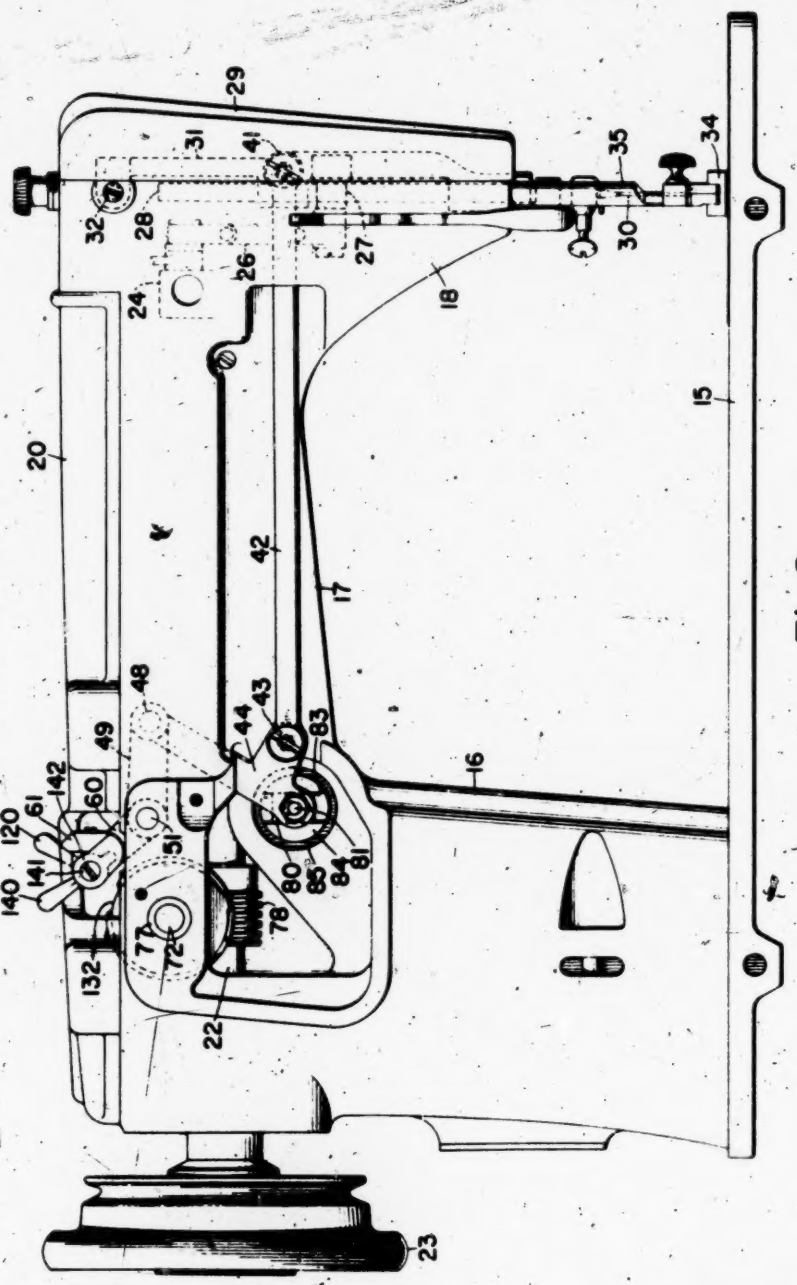

Fig.2.

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ORNAMENTAL STITCH SEWING MACHINES

Filed Dec. 8, 1954 5 Sheets-Sheet 3

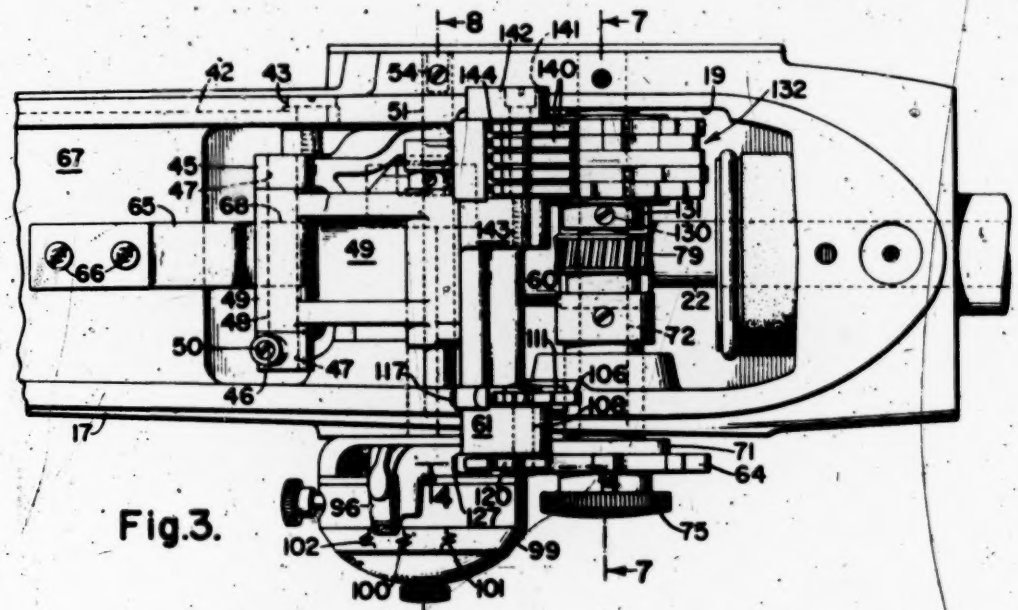

Fig.3.

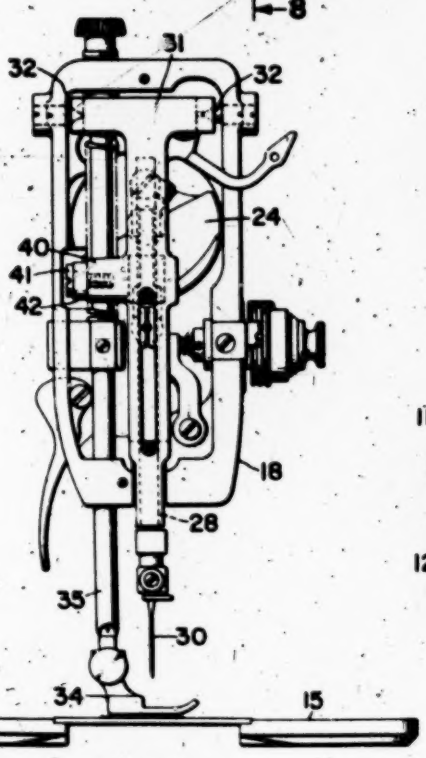

Fig.6.

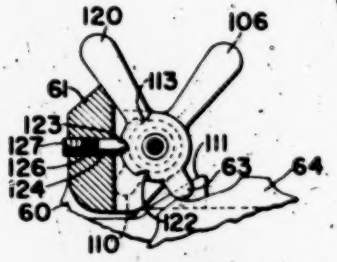

Fig.4.

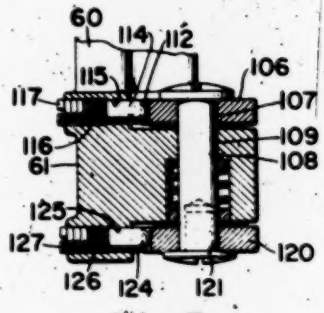

Fig.5.

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WITNESS

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Fig.7.

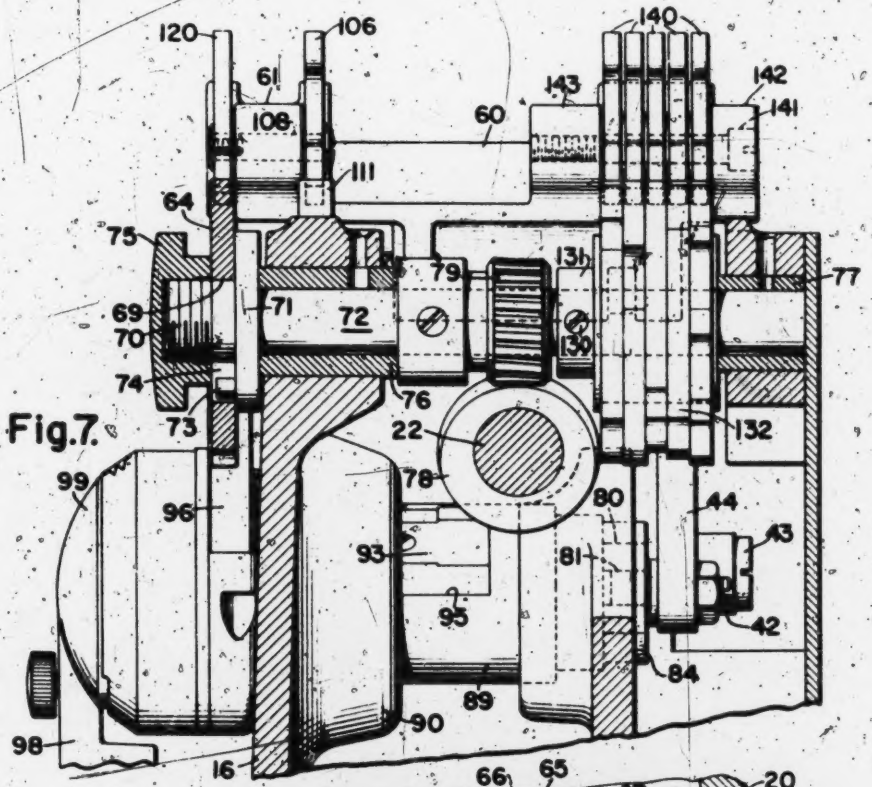
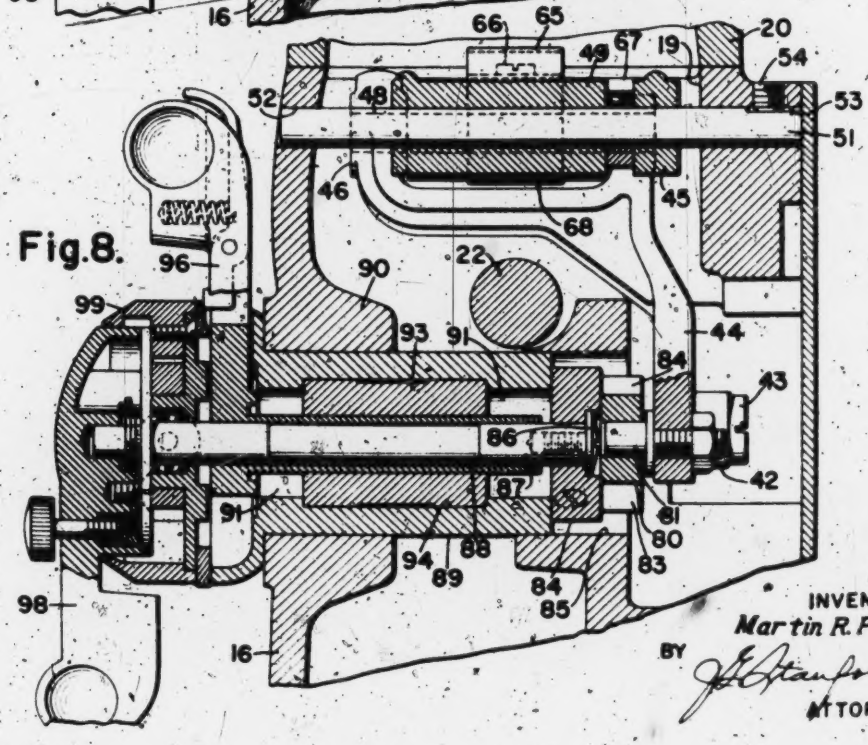


Fig.8.



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ORNAMENTAL STITCH SEWING MACHINES

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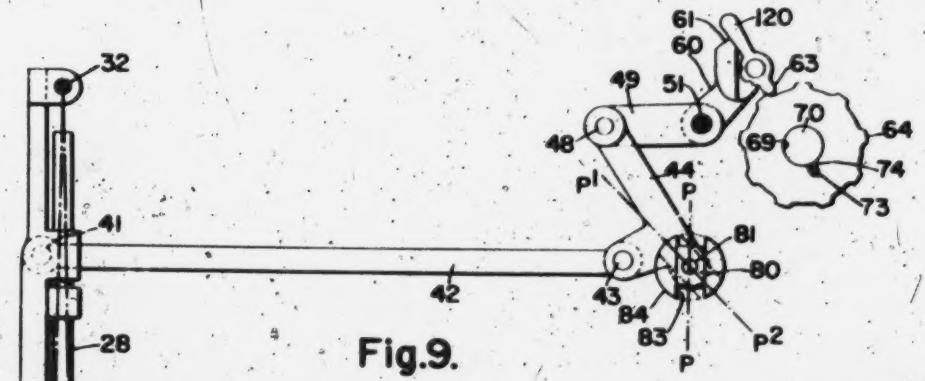

Fig.9.

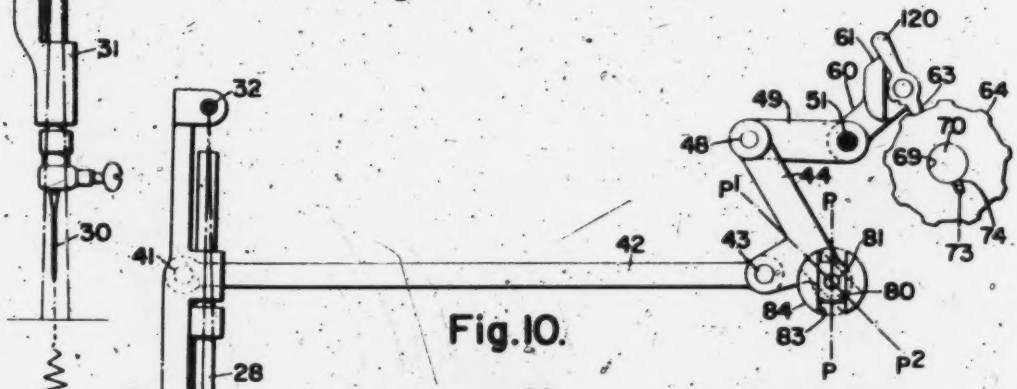

Fig.10.

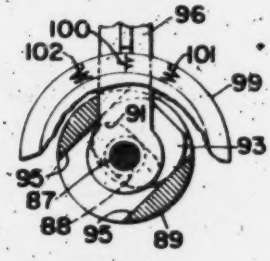

Fig.11.

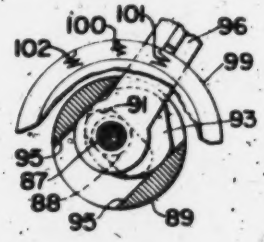

Fig.12.

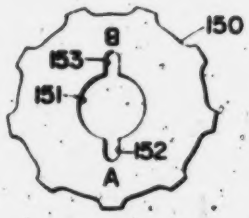

Fig.13.

WITNESS

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United States Patent Office

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2,810,360

ORNAMENTAL STITCH SEWING MACHINES

Martin Richard Perla, Bridgeport, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application December 8, 1954, Serial No. 473,855

12 Claims. (Cl. 112—158)

This invention relates to improvements in ornamental stitch sewing machines and has for an object to provide such a machine with novel mechanism whereby the machine can be made to produce a large number of ornamental designs without any change in the construction of the machine.

A more specific object of the present invention is to provide a zigzag stitch type ornamental sewing machine with a plurality of different response producing records for controlling the actions of the zigzag stitch mechanism and means whereby such records may be selectively employed in different combinations for effecting various patterns of ornamental stitches.

A more specific object of the present invention is to provide a zigzag stitch sewing machine with novel mechanism including a plurality of rotary pattern cams and a plurality of cam tracking devices which function singularly or in combination to impart sidewise zigzag motions to the needle.

The above noted objectives have been accomplished by providing a zigzag type sewing machine, in addition to a removable rotary pattern cam located outside the confines of a sewing machine frame, with a nest of five rotary pattern cams which are secured together and rigidly mounted upon a cross-shaft which carries the usual removable cam. This nest of pattern cams is disposed within the confines of a sewing machine frame and it is not adapted normally to be removed from the machine by the operator. This machine is further provided with a first cam follower which is adapted to track the removable cam for the purpose of converting the rotary cam motions into lateral needle motions. In addition to this first cam follower the machine is provided with five supplementary cam followers of which each is adapted to track a respective one of the five nested pattern cams. These six cam followers are so arranged that any combination thereof may be operably positioned against their respective associated cams so that various combinations of cam pattern movements may be transmitted to the needle-bar, during a continuous predetermined stitching cycle.

With the above and other objects in view, the invention comprises the devices, combinations and arrangements of parts hereinafter described in connection with the accompanying drawings, which illustrate the preferred embodiment of the invention from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the drawings:

Fig. 1 represents a side elevation, partly in section, of a sewing machine containing the present improvements.

Fig. 2 represents a rear side elevation of the bracket-arm of the machine disclosed in Fig. 1.

Fig. 3 represents a top plan view of a portion of the bracket-arm with the bracket-arm cover removed.

Fig. 4 represents, on an enlarged scale, a sectional view taken substantially along the line 4—4 of Fig. 3.

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Fig. 5 represents, on an enlarged scale, a sectional view taken substantially along the line 5—5 of Fig. 1.

Fig. 6 represents a left-hand end view of the sewing machine disclosed in Fig. 1 but with the face plate removed.

Fig. 7 represents, on an enlarged scale, a sectional view taken substantially along the line 7—7 of Fig. 3.

Fig. 8 represents, on an enlarged scale, a sectional view taken substantially along the line 8—8 of Fig. 3.

Figs. 9 and 10 respectively represent detail views of the needlegate and its vibrating pitman and diagrammatically illustrate the effects of the pitman controlling mechanism which causes the needle to vibrate across and from one side of the neutral position of nonvibration of the needle.

Figs. 11 and 12 respectively represent cross-sectional views of the adjusting shaft and supporting bushing with the neutral position controlling lever at different limits of movement in the respective views.

Fig. 13 represents a modified form of rotary cam.

The present improvements are illustrated in the drawings and herein described as embodied in a zigzag stitch sewing machine of the type disclosed in the United States patent of Alfred Tiesler, No. 2,014,916, dated September 17, 1935. Furthermore, the manually controlled adjusting means employed in connection with the present sewing machine for effecting lateral movements of the needle is disclosed and described in detail in the United States patent application Serial No. 356,928, filed May 25, 1953, by Ralph E. Johnson and Alexander F. Kerr, now Patent No. 2,713,838, dated July 26, 1955.

Referring to the drawings, the sewing machine illustrated has a bed-plate 15 affording a work support from one end of which rises the hollow standard 16 of a bracket-arm 17 overhanging the bed-plate and terminating at its free end in a hollow head 18.

The bracket-arm 17 is open at its upper portion so as to form a substantially trough-shaped unit and this opening, designated in Fig. 3 by the numeral 19, is adapted to be closed by means of a cover-plate 20 which is removably secured in position by a plurality of screws of which one, 21, is shown in Fig. 1.

Rotatably journaled in suitable bearings provided in the bracket-arm 17 is a horizontally disposed main shaft 22 extending lengthwise of the bracket-arm and carrying at one end a driving pulley 23. At its opposite end, the main shaft 22 carries a counter-balanced crank 24 provided with a crank-pin 25 connected by a jointed link 26 to a collar 27 secured upon a vertically disposed needle-bar 28. This needle-bar mechanism is located within the hollow head 18 which is closed at its forward end by means of a face-plate 29.

The needle-bar 28 carries at its lower end an eye-pointed needle 30 and is journaled for endwise reciprocation in bearings provided in a substantially T-shaped vibratory needle-bar gate 31. The gate 31 is pivotally hung upon a pair of oppositely disposed pintle screws 32—32 supported within apertures provided in the opposite wall portions of the hollow head 18 so as to provide for swinging movements of the gate about a substantially horizontally disposed axis.

Cooperating with the needle 30 below the bed-plate 15 and in the formation of lock stitches is a loop-taker 33 supported for rotation in a vertical plane parallel to and rearwardly of the plane of needle vibration. The loop-taker 33 is rotated twice for each complete needle reciprocation by driving connections with the main shaft 22. Feeding mechanism of the lower four-motion type is provided for advancing work past the needle in a direction transverse to the plane of needle vibration, and a presser-foot 34 is secured to a presser-bar 35 so as to oppose the work-engaging portion of the feeding mechanism in conventional manner.

Extending horizontally from an intermediate portion of the needle-bar gate 31 is a boss 40 to which is pivotally secured by means of a clamp-screw 41 one end portion of a link or pitman member 42. The pitman 42 is disposed horizontally and externally at the rearward side of the bracket-arm 17. As is best disclosed in Fig. 2, the other end of the pitman 42 is pivotally connected by means of a shoulder screw 43 to a link member 44, the upper end portion of which is formed in the manner of a fork so as to provide two spaced arms 45 and 46 of which each is apertured, as at 47, so as to be pivotally connected by means of a pin 48 to one end portion 49 of a cam-actuated bell-crank lever which also receives the pin 48. A set screw 50 threaded within the arm portion 46 locks the pin 48 in its proper position within the forked end portions of the link 44.

The lever 49 is pivotally mounted within the bracket-arm 17 by means of a horizontal stub shaft 51 which extends transversely across the sewing machine bracket-arm to be received within oppositely disposed apertures 52 and 53 formed in the bracket-arm walls. A set screw 54 locks the shaft 51 in its proper position within the bracket-arm.

Projecting upwardly and laterally from the bell-crank arm 49 is a second arm 60 carrying an offset portion 61 which extends through an aperture 62 formed within the cover-plate 20 so as to be positioned outside the confines of the sewing machine frame. As may be best understood by reference to Figs. 1 and 3, the arm portion 61 is provided with a cam follower, generally designated by the numeral 63, which cam follower will be hereinafter described in further detail.

The cam follower 63 is forced into engagement with the periphery of a rotary cam 64 by means of a leaf spring 65 of which one end portion is secured by means of screws 66, 66 to a cross brace 67 formed within the sewing machine bracket-arm, while the other end portion is formed as an upturned hook 68 which is disposed directly beneath the left-hand end portion of the bell-crank lever arm 49, as viewed in Fig. 1, so as to bias the lever in a clockwise direction thereby to urge the cam follower 63 downwardly into engagement with the periphery of the cam 64.

Referring particularly to Figs. 1, 3 and 7, the cam 64 is provided with an aperture 69 so that the cam may be removably disposed over the threaded end portion 70 and against the shouldered portion 71 of a cam shaft 72. The cam shaft 72 has its end shoulder portion 71 provided with a pin 73 which is received within an aperture 74 for the purpose of locating the cam in its proper position upon the cam shaft 72. A thumb screw 75 is adapted to be received over the threaded end portion 70 of the cam shaft for the purpose of locking the cam 64 in its operable position against the shoulder 71.

The cam shaft 72 is journaled in the front and rear walls of the bracket-arm 17 in bearing bushings 76 and 77, said cam shaft 72 being disposed above and horizontally transverse to the main shaft 22. A spiral gear 78 carried by the main shaft 22 drives a spiral gear 79 secured upon the cam shaft 72 whereby the latter is rotated, for example, at one-eighteenth the speed of rotation of the main shaft 22.

From the foregoing, it will be understood that, during the operation of the machine the cam 64 being carried by the rotary stub shaft 72 will rotate and thus actuate the cam follower 63 to the end that the bell-crank lever 49—60 will pivot about its pin 51 so that the lever 49 will rise and fall in a manner as dictated by the peripheral shape of the cam and, thus, the pitman 42 through the medium of the depending link member 44 will have its left-hand end portion, as viewed in Fig. 2, shifted up and down.

In order to translate the lateral vibratory movements of the pitman 42 into effective endwise reciprocatory movements, thereby to impart swinging movements to the needle-bar gate 31, a guide block 80 (see Figs. 2 and 8) is secured upon the pitman 42 by a pin 81, which guide block 80 is shiftably disposed within a guideway 83 constituted by a rearwardly open slot formed on the outer or rearwardly exposed face of an arcuately and bodily adjustable guide head 84. The guideway 83 and the block 80 preferably have straight sides but, if desired, the guideway and the block may each be arcuate with its center of curvature in one position of the guide 83 lying in the pivotal axis of the pitman 42 afforded by its pivotal connection 41 with the needle-bar gate 31.

The guide head 84 extends freely through an opening 85 in the rear wall of the bracket-arm 17 whereby the portion of the guide head containing the guideway 83 is disposed at the rear of the bracket-arm. The guide head 84 is secured by a screw 86 upon an adjusting shaft 87 disposed parallel to the cam shaft 72 and having its longitudinal axis in substantially the horizontal plane.

The adjusting shaft 87 of the guide head 84 is rotatably journaled in a bearing sleeve 88 in the form of a hollow shaft telescopically arranged in a coaxial relation with the adjusting shaft 87 and supported for turning and bodily lateral movements thereof by a supporting member in the form of a fixed bushing 89 secured by one or more screws, not herein shown, in a bearing boss 90 provided in the front wall of the bracket-arm 17. The opposite ends of the bearing sleeve 88 are fitted to slide in parallel guide slots 91, 91 provided at the opposite ends of the bushing 89, such guide slots being elongated in a direction corresponding to the general direction of the center line of the guideway 83 at its limit of angular movement in which the needle has its maximum lateral throw. The guide slots 91, 91 therefore confine the bearing sleeve 88 and the adjusting shaft 87 journaled in the bearing sleeve through lateral movements in a path corresponding to the path of movement of the block 80 in the guideway 83 at the limit of angular movement of the guide head 84 influencing maximum vibration of the needle. As the lateral movements of the adjusting shaft 87 determine the different neutral positions of nonvibration of the needle, it will be understood that the maximum needle vibration of the needle remains fixed on changing from one to another neutral position of nonvibration of the needle. This arrangement has the advantage of maintaining cooperative relationship between the needle and the loop-taker within predetermined limits of lateral throw of the needle so that within said limits no provision need be made for imparting compensating movements to the loop-taker regardless of the neutral position adjustment of the controlling mechanism.

In order manually to effect bodily shifting movement of the adjusting shaft 87 and therefore the axis of angular adjustment of the guide head 84, an eccentric 93 is secured by a set screw, not herein shown, upon the bearing sleeve 88 within the ends of the latter. The eccentric 93 is disposed within a recess 94 provided in the bushing 89 between the ends of the bushing containing the guide slots 91, 91, the opposed and parallel walls 95 which (see Figs. 11 and 12) define the recess 94 being substantially transverse to the length of the guide slots 91, 91 diametrically of the bushing. The front end of the bearing sleeve 88 extends beyond the front end of a bushing 89 and rigidly carries an operating arm 96 disposed externally of the front wall of the bracket-arm 17.

By turning the operating arm 96 from one limit of movement as shown in Fig. 11 to the other limit of movement shown in Fig. 12, a combination turning and sliding movement is imparted to the eccentric 93 within the confines of the walls 95, 95 of the bushing 89 due to the fact that the bearing sleeve 88 which carries the eccentric 93 is confined by the guide slots 91, 91. The described movement of the eccentric 93 carries the bearing sleeve 88 from one end to the other on the guide slots 91, 91 and thereby effects a bodily lateral shifting movement of the angular adjustment axis of the guide head 84 between fixed limits. Obviously the operating

arm 96 may be turned a distance less than that of its full throw, if desired.

The front end of the adjusting shaft 87 extends forwardly beyond the front end of the bearing sleeve 88 and secured thereto by means not herein described, is a hand lever 98 operable to turn angularly the guide head 84 and thereby change the amplitude of needle vibration. For a more complete description and disclosure of the present needle vibration controlling mechanism, reference may be had to the above noted United States patent application Serial No. 356,928.

In connection with the adjusting levers 96 and 98, it is sufficient to say that the member 96 has cooperating therewith an indicia plate 99 having, as best disclosed in Figs. 1, 7 and 8, three indicia characters 100, 101 and 102 of which the character 100 indicates the central or null position of the needle illustrated by the solid lines of Figs. 9 and 11, while the character 101 indicates an extreme left-hand adjustment of the needle as indicated by the solid lines of Figs. 10 and 12. Character 102 illustrates the extreme right-hand position of the needle which is not illustrated in the present drawings.

In the mid-position of the operating arm 96, illustrated in Fig. 11, the fulcrum axis of the adjusting shaft 87 is disposed at mid-position of its movement within the inclined slots 91, 91 of the bushing 89 and the nonvibration path of the needle is located centrally of its field of vibration as illustrated in Fig. 9 of the drawings. In this position of the lever 96, and when the hand lever 98 employed to control the vibration amplitude of the needle is disposed in its lower position as indicated in Fig. 1, the index arrow 105 carried by the handle 99 (see Fig. 1) points to the zero marking on the handle 98 and this is indicative of the fact that upon operation of the machine the needle will be reciprocated in a fixed path which, as above indicated, is located centrally of its field of vibration. This is due to the position of the guideway 83, as shown in full lines in Fig. 9, which is now disposed in a neutral position wherein the guide block 80 idly traverses said guideway 83 in a path P—P so that no appreciable endwise movement is imparted to the pitman 42. If the hand lever 98 is now turned in a counterclockwise direction as viewed in Fig. 1, the guideway 83 will be correspondingly turned angularly into a position of axial influence upon the pitman 42, the center of the guide block 80 now traversing a path P^1, P^2 which extends equal distances to opposite sides of and intersects the angular adjustment of central axis of the guideway 83. Consequently, this action will effect the action of the needle so that the throw of the needle will be at opposite sides of its neutral path of reciprocation in a symmetrical manner. In the described position of the operating arm 96, any positions of the hand lever 98 from zero to maximum throw of the needle will be visually indicated by the index figures carried by the member 98 and the arrow 105 of the member 99.

When the operating arm 96 is turned to its right-hand limit of its movement (see Fig. 12) while the hand lever 98 is in the position illustrated in Fig. 1 the fulcrum axis of the adjustment shaft 87 will be laterally displaced in a direction corresponding substantially to the length of the guideway 83 that is in substantially the path P^1, P^2 illustrated in Fig. 9. As hereinbefore explained, this is due to the fact that the guide slots 91, 91 are elongated in a direction substantially corresponding to the path P^1, P^2.

Referring now to Fig. 10, it will be understood that the lateral shifting of the adjusting shaft 87 from the position illustrated in Fig. 9 has displaced the fulcrum or central axis of the guideway 83 into coincidence with the lower limit of movement of the center of the guide block 84. Consequently, operation of the hand lever 98 now effects angular adjustment of the guideway 83 about said lower point and the guide block 80 has a path of travel bearing from its neutral path P—P to its path P^1, P^2 of maximum influence upon the pitman 42, the neutral path of reciprocation of the needle being entirely at the left-hand side of its field of vibration as shown in Fig. 10.

By the same token, if the handle 96 is moved to its extreme left-hand position of the said indicia device 99, the needle would be shifted to its extreme right-hand position and, thus, the neutral path of reciprocation of the needle will be entirely at the right-hand side of the field of operation all of which is disclosed and described in the above noted pending United States patent application Serial No. 356,928.

From the above, it is to be understood that the present machine as so far described is characterized by having a rotary pattern-cam 64 which is adapted to impart lateral zigzag movements to the needle 30. This cam mechanism is designed in such a manner that various cams may be substituted for the purpose of providing different types of ornamental zigzag stitches. For example, the cam 64 disclosed in Figs. 9 and 10 of the patent drawings is adapted to produce a conventional zigzag stitch whenever the handle 98 is shifted away from its zero position, but, of course, other cams having different peripheral configurations may be substituted for the cam 64 so as to produce various types of motion patterns for the needle. However, in addition to being cam actuated the present machine is provided with means for altering the amplitude of lateral needle vibration and for varying the null or nonvibration position of the needle. In other words, the various selected cams may be employed for imparting divers patterns of lateral motion to the needle but at the same time the amplitude of this motion, as well as the nonvibration position of the needle, may be varied by movement of the handles 96 and 98.

In order to prevent wear of the cam follower 63 and the cam 64 during the time that the machine is adjusted for straight line stitching the present invention contemplates the provision of a cam follower lifting device in the form of a hand lever 106 whose intermediate portion is apertured at 107 so that the member may be rotatably secured upon a pin 108 mounted within an aperture 109 formed in the portion 61 of the bell-crank lever arm 60. The lifting lever 106 is provided at its lower end with a finger portion 110 which, when the lever is turned in a counterclockwise direction as viewed in Fig. 4, is adapted to engage an inclined abutment block 111 formed upon the side wall of the bracket-arm 17. As the finger portion 110 engages the inclined abutment member 111 it will urge the member 61 to move in a counterclockwise direction about its pivot pin 51 whereby the cam follower portion 63 will rise out of contact with the cam 64 so that during straightaway stitching of the machine the cam 64 will not engage the cam follower 63.

As may be observed from Figs. 4 and 5, the lever 106 is provided with a pair of detent-receiving notches 112 and 113 which are adapted to receive a detent pin 114 slidably disposed within an aperture 115 formed within the member 61. A spring 116 located within the bore 115 urges the detent 114 toward the lever 106 while a set screw 117 maintains the spring in its proper position. From this it is to be understood that the detent-receiving notches 112 and 113 respectively lock the handle member 106 in its operative or inoperative positions relative to the inclined abutment block 111.

For reasons which will be hereinafter set forth, the above noted cam follower 63 is formed upon the lower portion of a hand lever 120 which, like the cam follower lifter lever 106, is apertured as at 121 so as to be pivotally secured upon the pin 108 carried by the member 61. The member 120 is also provided with a pair of detent-receiving notches 122 and 123 of which each is adapted to be engaged by a detent member 124 located within a bore 125 of the member 61 so as to be biased by a spring 126 toward the member 120. A set screw 127 maintains the spring 126 in its proper position. From

this it is to be understood that the detent-receiving notches 122 and 123 will function respectively to maintain the member 120 either in its inoperative or operative position relative to the cam 64.

Referring particularly to Figs. 3 and 7, the cam shaft 72 has secured thereto by means of a set screw 130 a cylindrical hub member 131 which carries as an integral part thereof five different rotary cam elements which are designated by the numeral 132. These five cams are rigidly mounted upon the hub 131 so that they will all rotate in synchronism with the shaft 72 and as a consequence with the aforementioned cam 64.

Cooperating with each of the five cams is a separate cam follower lever member 140 having a configuration and a construction substantially similar to that of the lever 120. By referring particularly to Fig. 3, it is to be observed that there are five of these levers 140 of which each is pivotally mounted upon a pin 141 carried between spaced portions 142 and 143 of the bell-crank arm 60 so that each of the lever members 140 may be shifted about the pin in the same manner as the above noted lever member 120. Cooperating with each of these levers 140 is a spring-biased detent pin, designated by the numeral 144, and each of these pins is constructed and is adapted to operate in the exact same manner as is the above noted pin 124.

Each of the members 140 is adapted to be shifted about the pin 141 independently of its associated members and it is designed in the manner of the aforesaid lever 120 to engage an oppositely disposed one of the five rotary cams 132 when the lever is in one position and to be disposed out of contact with the cam when the lever is in its retracted or inoperative position in the same manner as the lever arm 120.

From this it is to be understood that the levers 140 function in the same manner as the lever 120 to cooperate with their oppositely disposed cams 132 and, as a matter of fact, an operator may select any one of the available six cams for operation at any one time or, in the alternative, any combination of these cams may be operatively employed simultaneously merely by throwing the appropriate lever arms into their operative positions. Thus, the present machine is designed to produce a large number of different ornamental stitch patterns as dictated by the peripheral cam portions of the various six cams. Furthermore, various combinations of these cams may be selected to operate in synchronism thus producing cam patterns which are distinctly different from any one of the individual cams themselves. Thus, from one to six cams may be operated either singularly or in various selected combinations.

The cam follower lifting member 106 when thrown to its operative position wherein its finger portion 110 is upon the inclined abutment member 111 functions to raise all of the six cam followers so that they will not engage any of the cams to the end that the followers will not engage the cams during straight stitching operations.

It will also be appreciated that the hand control levers 96 and 98 which control the bight or amplitude of needle-bar vibration will alter the effectiveness of the cams 132 in the exact same fashion that they affect the effectiveness of the cam 64 to the end that these cams may be rendered ineffective by positioning the bight control arm 98 in its so-called zero position, and the width of the stitch pattern produced by any one or a combination of these cams may be affected by the proper adjustment of the lever 96 in the fashion as described hereinabove in connection with the operation of cam 64.

It is to be understood that the above described groups of cams are in effect intelligence record-carrying means having a plurality of different response producing records while the various cam follower elements 120 and 140 are in effect individual intelligence pick-up devices corresponding to each of the response-producing records for sensing and responding to said records in reaction to the relative movements between the pick-up means and the record-carrying means. Also, the bell-crank lever member 49—60 is essentially a mechanism for integrating a plurality of the record responses, while the pitman 42 with its connection means constitutes a transmission mechnism for shifting the needle sidewise in conformance with the integrated record response, and the elements 96 and 98 constitute operator-influenced means for varying the effect of the various record-carrying means.

In order to provide further patterns of ornamental stitches the present invention contemplates the provision of means whereby a needle-controlling cam may be adjusted about its cam shaft. For example, the cam 64 may be replaced by a cam 150 (see Fig. 13) which is provided with two notches 152 and 153, either of which may receive the cam-shaft locating pin 73. For purposes of convenience these notches may be labeled on the cam by the letters "A" and "B." From Fig. 13 it may be observed that the notches 152 and 153 are disposed adjacent dissimilar portions of the cam periphery so that the cam 150 may be mounted upon the shaft 72, in two different effective positions relative to the other cams 132. Thus, the cam 150 may be adjusted about the shaft 72 and relative to the cams 132 to the end that such an adjustment will affect a new ornamental stitch pattern whenever the cam 150 is simultaneously employed in conjunction with any combination of the cams 132.

Naturally, additional pin-receiving notches may be provided in cam 150 so as to provide for further adjustment of the cam about its shaft 72. Such a relative phase shifting of the cams will result in an alteration of the integrated record response of the bell-crank lever arm 49 with the result that a different ornamental stitch will be produced.

Having thus described the nature of the invention, what I claim herein is:

1. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, intelligence record-carrying means carried by said frame and having a plurality of different response-producing records, means for sensing and responding to at least a pair of said records during a continuous predetermined stitching cycle, said last mentioned means including an individual intelligence pick-up device provided for each of said response-producing records for sensing and responding to its associated record in reaction to relative movements between said pick-up device and said record-carrying means, means producing such relative movements in synchronism with the needle reciprocating movements during said cycle, means permanently aligning each pick-up device for sensing and responding to its associated record only, transmission mechanism connected with said needle for shifting said needle sidewise, means connecting each of said pick-up devices with said transmission means, and operator-influenced means carried by said frame for individually rendering each of said pick-up devices operative and inoperative relative to its associated record, and whereby a combined record response may be transmitted to said transmission means and to said needle by rendering operative two or more of said pick-up devices.

2. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, means connected to said needle for shifting the needle sidewise, a plurality of cylindrical rotary cams mounted upon said frame for rotation about a fixed common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-tracking elements of which each includes an arm and of which each element corre-

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sponds to a respective one of said cams for sensing and responding to its associated cam in response to the movements of the cam, means supporting each of said elements upon said frame for shifting movements relative to and independently of its associated elements, means permanently aligning each of said elements for sensing and responding to its associated cam only, and operator-influenced means carried by said frame for selectively establishing an operative connection between said first mentioned means and each of said elements whereby said needle may be shifted sidewise in conformance with selected cam responses of said elements.

3. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pitman connected to said needle for shifting the needle sidewise, a plurality of cylindrical rotary cams mounted upon said frame for rotation about a fixed common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-tracking elements each corresponding to a respective one of said cams, means permanently aligning each of said elements to movement in a single plane, means connecting each of said elements with said pitman thereby to actuate the latter in response to movements of said cams, means for individually shifting each of said elements into and out of cam-tracking relation with its associated cam, said last mentioned means including a plurality of handles each being connected to a respective one of said cam-tracking elements, and spring means carried by said frame and biasing said cam-tracking elements toward engagement with said cams.

4. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pitman connected to said needle for shifting the needle sidewise, a plurality of cylindrical rotary edge cams mounted on said frame for rotation about a fixed common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-tracking elements all pivotally mounted about a common axis with each element corresponding to a respective one of said cams, means permanently aligning each element in radial relation with a respective one of said cylindrical cams, means connecting each of said elements with said pitman thereby to actuate the latter in response to movements of said cams, means for individually shifting each of said elements about said common axis and relative to its associated elements and into and out of cam-tracking position, said last mentioned means including a plurality of handles all pivotally mounted about a common axis and each being connected to a respective one of said cam-tracking elements, and spring means carried by said frame and biasing said cam-tracking elements toward engagement with said cams.

5. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pitman connected to said needle for shifting the needle sidewise, a lever pivotally mounted on said frame and about a fixed axis and connected with said pitman by means of a link, a plurality of rotary cams mounted upon said frame for rotation about a fixed common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-tracking elements all pivotally mounted about a common axis with each element corresponding to a respective one of said cams, means permanently aligning each of said elements in radial relation with a respective one of said cams, means connecting each of said elements with said lever so as to shift the latter about its axis in response to the movements of said cams, means for individually shifting each of said elements about said common axis and relative to its associated elements and into and out of cam-tracking position, said last mentioned means including a plurality of handles of which each is carried upon said lever and is connected to a respective one of said cam-tracking elements, and spring means carried by said frame and biasing said cam-tracking elements toward engagement with said cams.

6. An ornamental stitch sewing machine comprising, a hollow bracket-arm terminating at its free end in a head, a needle mounted in said head for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary shaft extending lengthwise of and within said bracket-arm and connected with said needle for reciprocating the latter, a pitman connected to said needle for shifting the needle sidewise, a lever pivotally mounted within said bracket-arm and about a fixed axis and connected with said pitman by means of a link, a cam shaft mounted within said bracket-arm and transversely of said rotary shaft, gears operatively connecting said two shafts, a plurality of rotary cylindrical edge cams disposed within said bracket-arm and mounted upon and for rotation with said cam shaft, a plurality of cam-tracking elements all disposed within said bracket-arm with each element corresponding to a respective one of said cams, means supporting each of said elements upon said frame for shifting movements relative to and independently of its associated elements, means permanently aligning each of said elements for tracking and responding to its associated cam, means connecting each of said cam-tracking elements with said lever so as to shift the latter about its axis in response to the movements of said cams, means for individually shifting each of said cam-tracking elements into and out of cam-tracking relation with its associated cam, said last mentioned means including a plurality of handles of which each is carried upon said lever and is connected to a respective one of said cam-tracking elements and projects out of the bracket-arm through an aperture provided in the bracket-arm, and spring means carried upon said bracket-arm and biasing said cam-tracking elements toward engagement with said cams.

7. An ornamental stitch sewing machine comprising, a hollow bracket-arm terminating at its free end in a head, a needle mounted in said head for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary shaft extending lengthwise of and within said bracket-arm and connected with said needle for reciprocating the latter, a pitman connected to said needle for shifting the needle sidewise, a lever pivotally mounted within said bracket-arm and about a fixed axis and conpected with said pitman by a link, a cam shaft mounted within said bracket-arm and transversely of said rotary shaft, gears operatively connecting said two shafts, a plurality of rotary cylindrical edge cams disposed within said bracket-arm and mounted upon and for rotation with said cam shaft, a plurality of cam-tracking elements disposed within said bracket-arm with each of said elements being carried by said lever and corresponding to a respective one of said cams for tracking the same, means supporting each of said elements upon said lever for shifting movements relative to and independently of its associated elements, means permanently aligning each of said elements for movement in a single plane, means for individually shifting each of said elements into and out of cam-tracking relation with its associated cam, said last mentioned means including a plurality of handles of which each is carried upon said lever and is connected to a respective one of said elements and projects out of the bracket-arm through an aperture provided in the bracket-arm, and spring means carried by said bracket-arm and biasing said elements toward engagement with said cams.

8. An ornamental stitch sewing machine comprising, a hollow bracket-arm terminating at its free end in a

head, a needle mounted in said head for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary shaft extending lengthwise of and within said bracket-arm and connected with said needle for reciprocating the latter, a pitman connected to said needle for shifting the needle sidewise, a lever pivotally mounted within said bracket-arm and about a fixed axis and connected with said pitman by means of a link, a cam shaft mounted within said bracket-arm and transversely of said rotary shaft, gears operatively connecting said two shafts, a plurality of rotary cylindrical edge cams disposed within said bracket-arm and mounted upon and for rotation with said cam shaft, a plurality of cam-tracking elements disposed within said bracket-arm and pivotally mounted about a common axis with each of said elements corresponding to a respective one of said cams, means permanently aligning each of said elements in radial relation with a respective one of said cams, means connecting each of said elements with said lever so as to shift the latter about its axis in response to the movements of said cams, means for individually pivoting each of said elements about said common axis thereby to shift such element into and out of cam-tracking position with its associated cam, said last mentioned means including a plurality of handles of which each is carried upon said lever and is connected to a respective one of said elements and projects out of the bracket-arm through an aperture provided in the bracket-arm, spring means carried by said bracket-arm and biasing said elements toward engagement with said cams, a pin carried by said pitman, an angularly adjustable guideway carried by said bracket-arm and receiving said pin for translating lateral vibrations of the pitman into endwise movements, and means mounted upon said bracket-arm for angularly adjusting said guideway thereby to alter the pattern of endwise pitman movements.

9. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of adjacently disposed rotary edge cams mounted on said frame for rotation about a common axis, means for rotating said cams in synchronism with the needle reciprocating movements, a lever pivotally secured upon said frame and about an axis disposed in parallel relation with the cam axis and being connected with said needle so as to shift the latter sidewise, a spring carried by said frame and biasing said lever toward said cams, a plurality of cam-tracking elements pivotally mounted upon said lever and about a common axis disposed in parallelism with said cam axis with each element corresponding to a respective one of said cams, means permanently aligning each of said elements in radial relation with a respective one of said edge cams, and means for individually pivoting each of said cam-tracking elements about its axis thereby to shift such element into and out of cam-tracking position with its associated edge cam, said last mentioned means including a plurality of handles of which each is connected to a respective one of said elements.

10. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pair of rotary cams mounted upon said frame, means rotating said cams in synchronism with the needle reciprocating movements, cam-tracking means carried by said frame for tracking and responding to said pair of cams during a continuous predetermined stitching cycle, transmission mechanism connecting said cam-tracking means with said needle for shifting said needle sidewise in conformance with the combined cam responses of said cam-tracking means, and means enabling said two cams to be phase-shifted relative to each other thereby to alter the stitch patterns performed by the needle.

11. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pair of rotary edge cams mounted upon said frame and about a common axis, means rotating said cams in synchronism with the needle reciprocating movements during a continuous predetermined stitching cycle, cam tracking means carried by said frame for tracking and responding to both of said cams during said continuous cycle, transmission mechanism connecting said cam tracking means with said needle for shifting said needle sidewise in conformance with the combined cam responses of said cam-tracking means, and means enabling one cam to be relocated about said common cam axis and relative to its associated cam thereby to alter the stitch patterns performed by the needle.

12. An ornamental stitch sewing machine comprising, a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, an oscillatable lever pivotally mounted about an axis fixed by said frame, said lever connected to said needle for shifting the latter sidewise, a plurality of cylindrical rotary edge cams mounted upon said frame for rotation about a fixed common axis, means rotating said cams in synchronism with the needle reciprocating movements, a plurality of cam-responding elements each corresponding to a respective one of said cams, means mounting each of said elements upon said lever for movements relative to said lever whereby each element may be shifted into and out of cam-responding relation with its associated cam, spring means biasing said lever toward said cams, manually operable means carried by said lever for releasably locking each of said elements against movement relative to said lever and in cam-responding relation with its associated cam whereby said needle may be shifted sidewise in conformance with selected cam responses of said elements, and means permanently aligning each of said cam-responding elements for responding to its associated cam only.

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Disclaimer

2,810,360.—*Martin Richard Perla*, Bridgeport, Conn. ORNAMENTAL STITCH SEWING MACHINES. Patent dated Oct. 22, 1957. Disclaimer filed Mar. 18, 1958, by the assignee, *The Singer Manufacturing Company*.

Hereby enters this disclaimer to claims 8 and 12 of said patent.

[*Official Gazette April 29, 1958.*]

GOVERNMENT'S EXHIBIT 183 (S-44)

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ORNAMENTAL STITCH SEWING MACHINES

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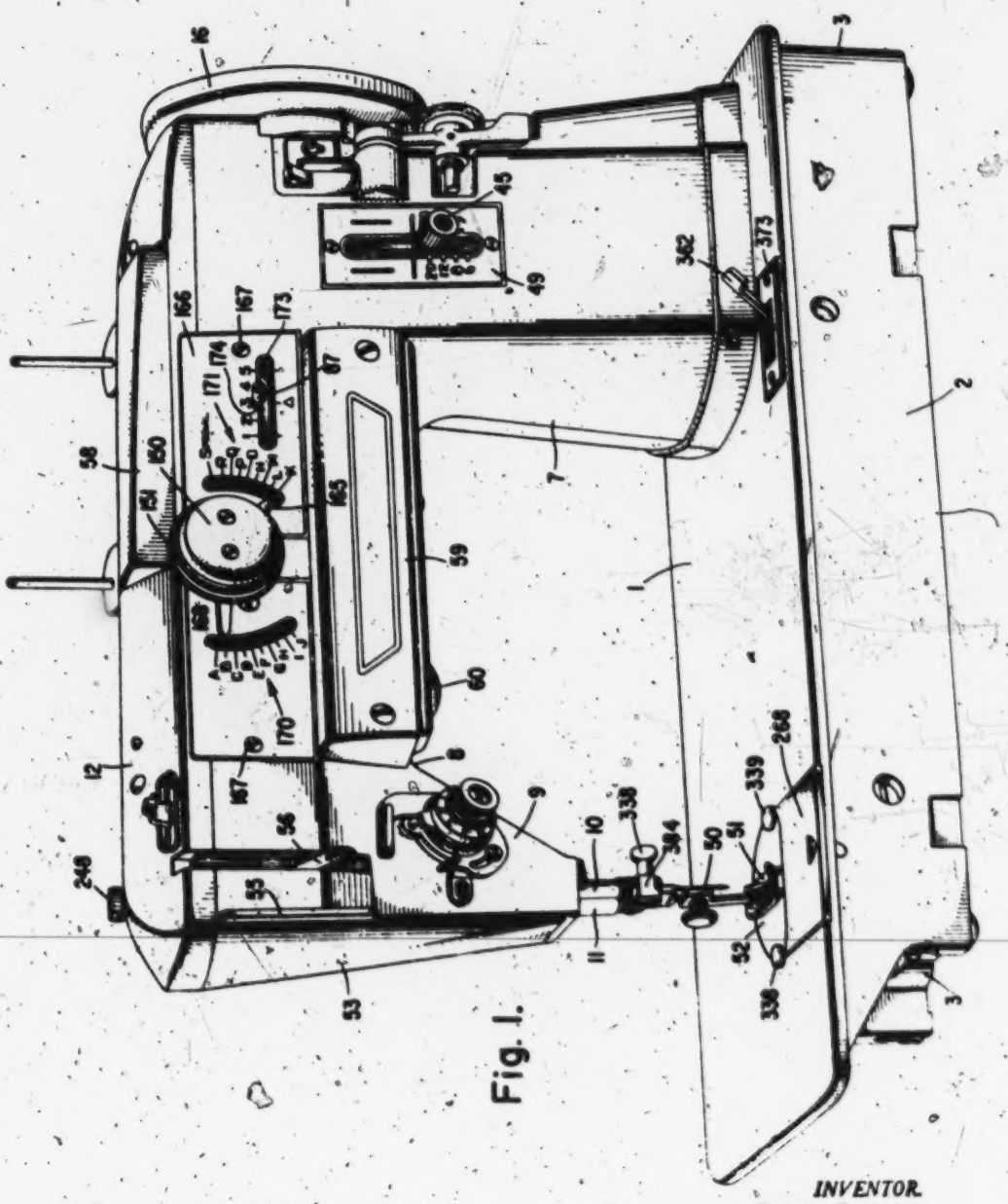

Fig. 1.

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WITNESS

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Dec. 2, 1958

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2,862,468

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15 Sheets-Sheet 2

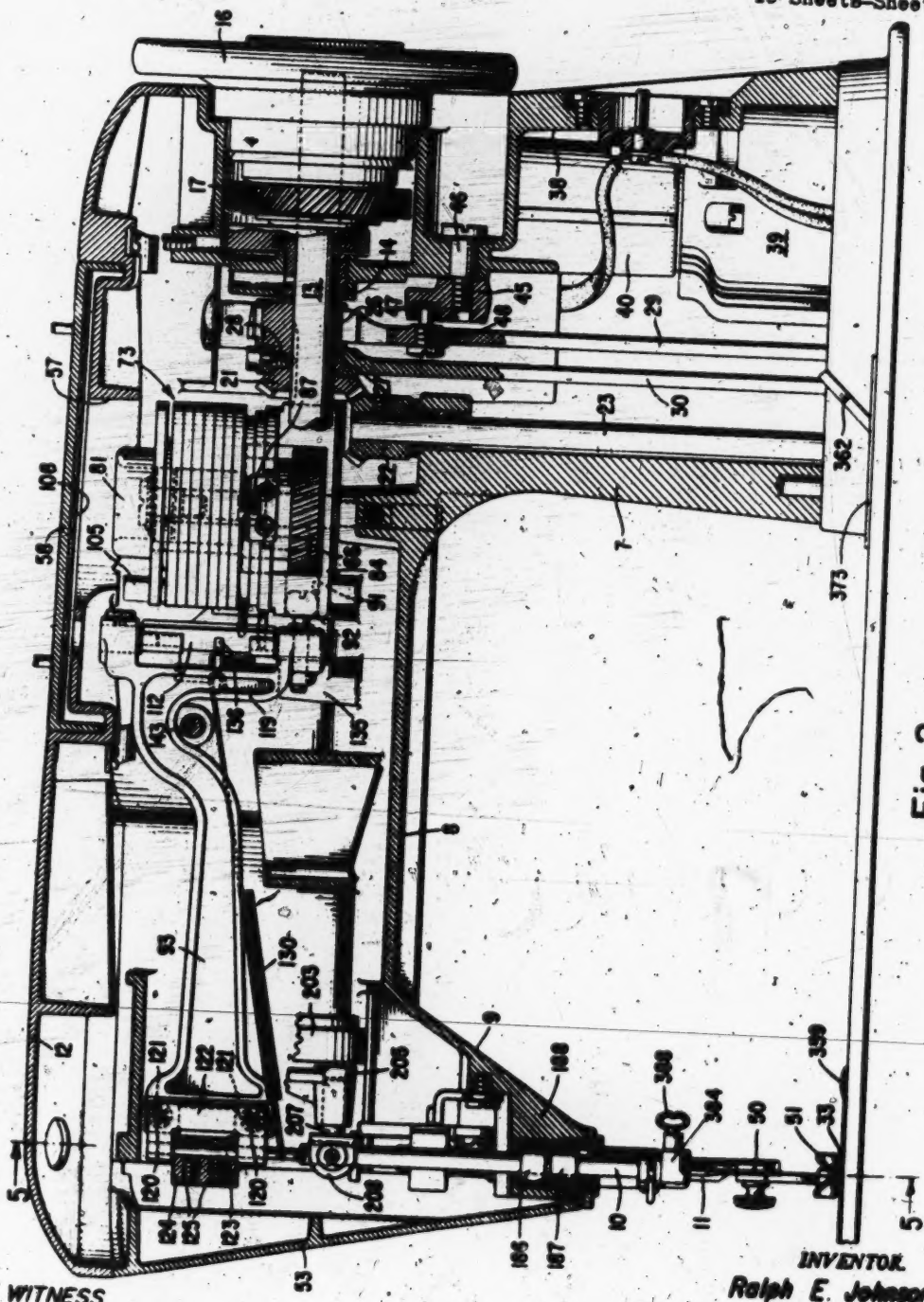

Fig. 2.

WITNESS

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ORNAMENTAL STITCH SEWING MACHINES

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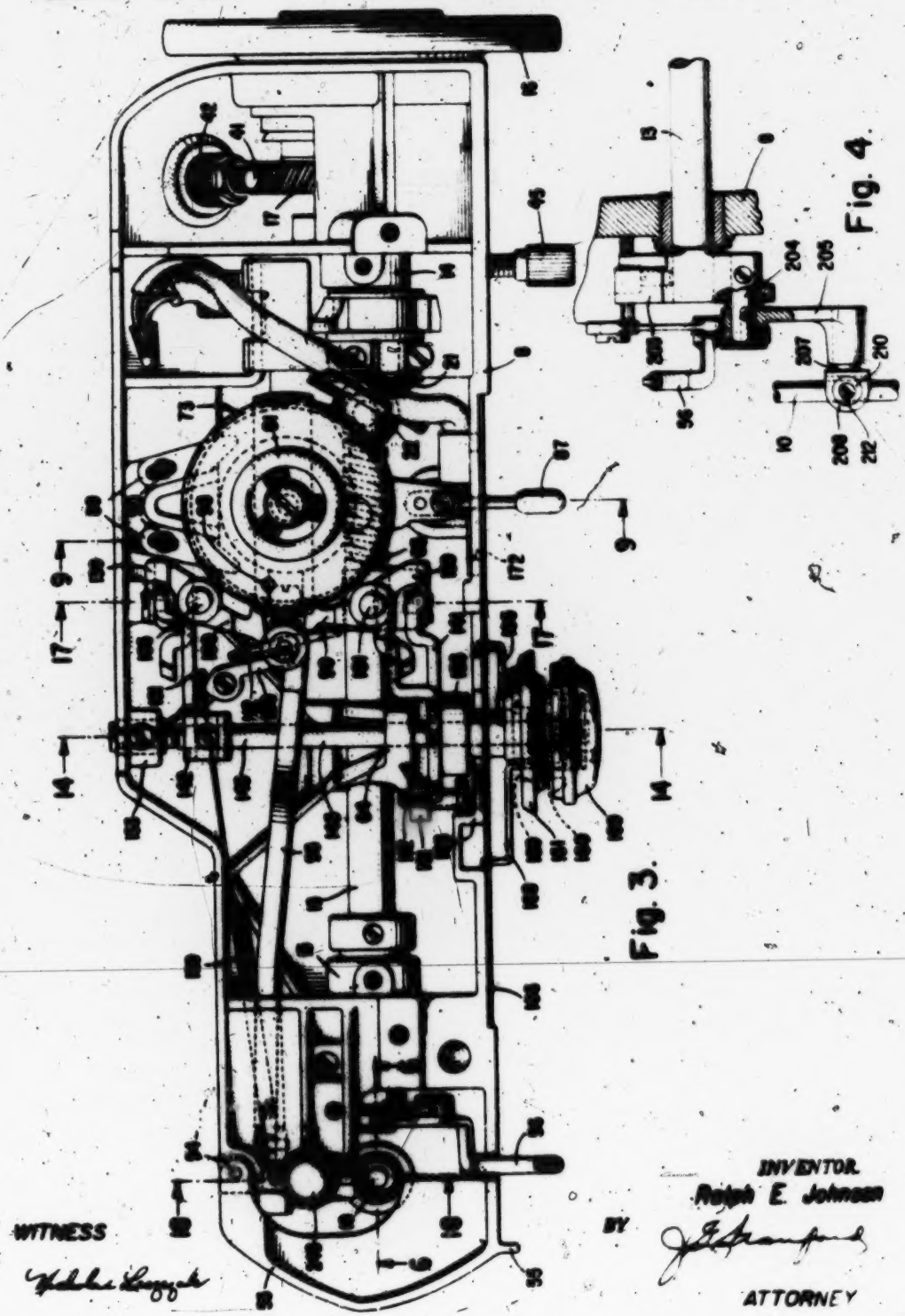

Fig. 4.

Fig. 3.

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

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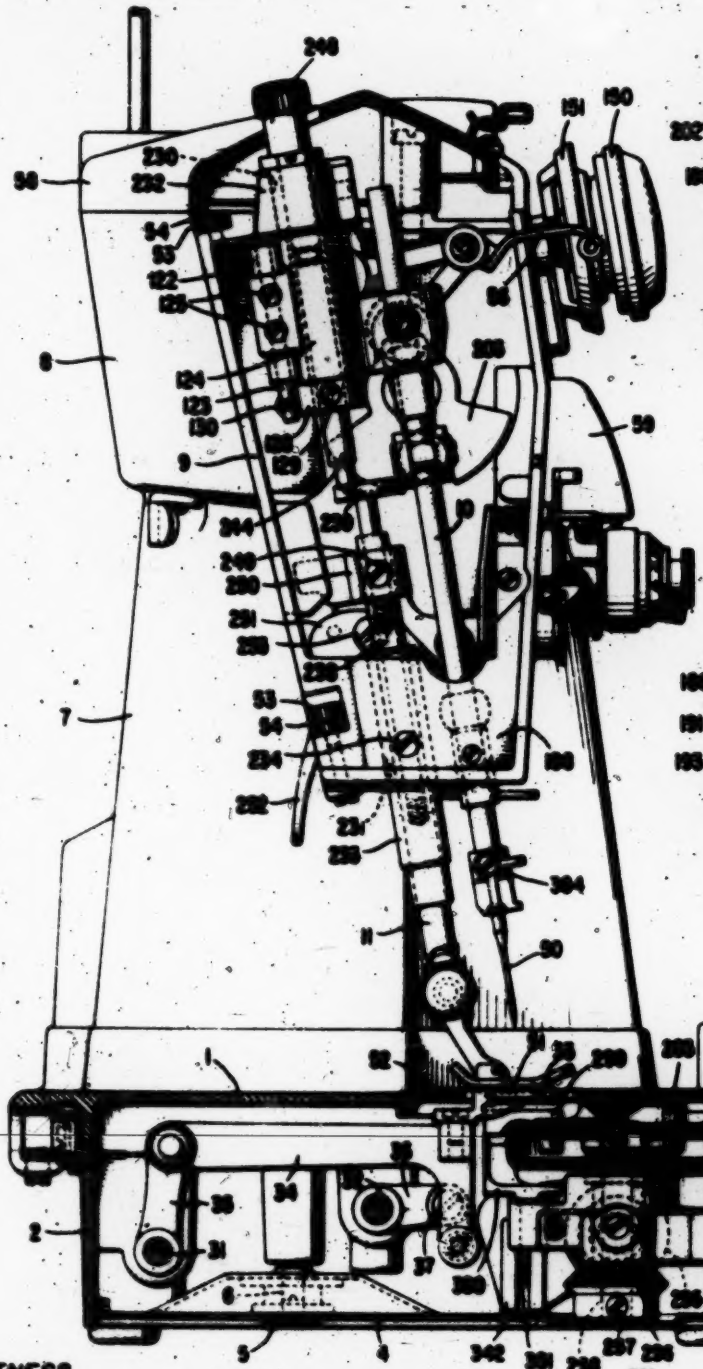

Fig. 5.

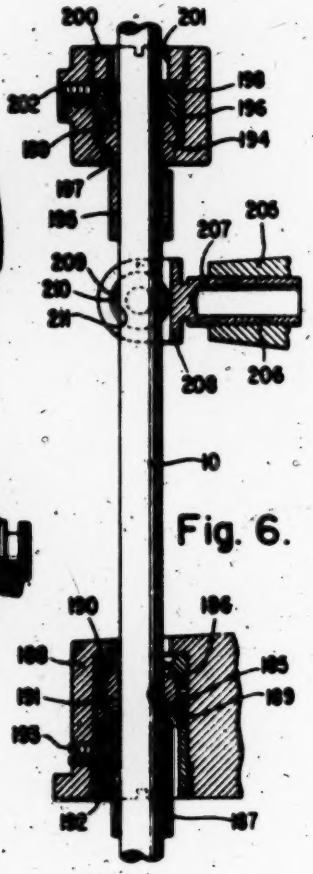

Fig. 6.

WITNESS

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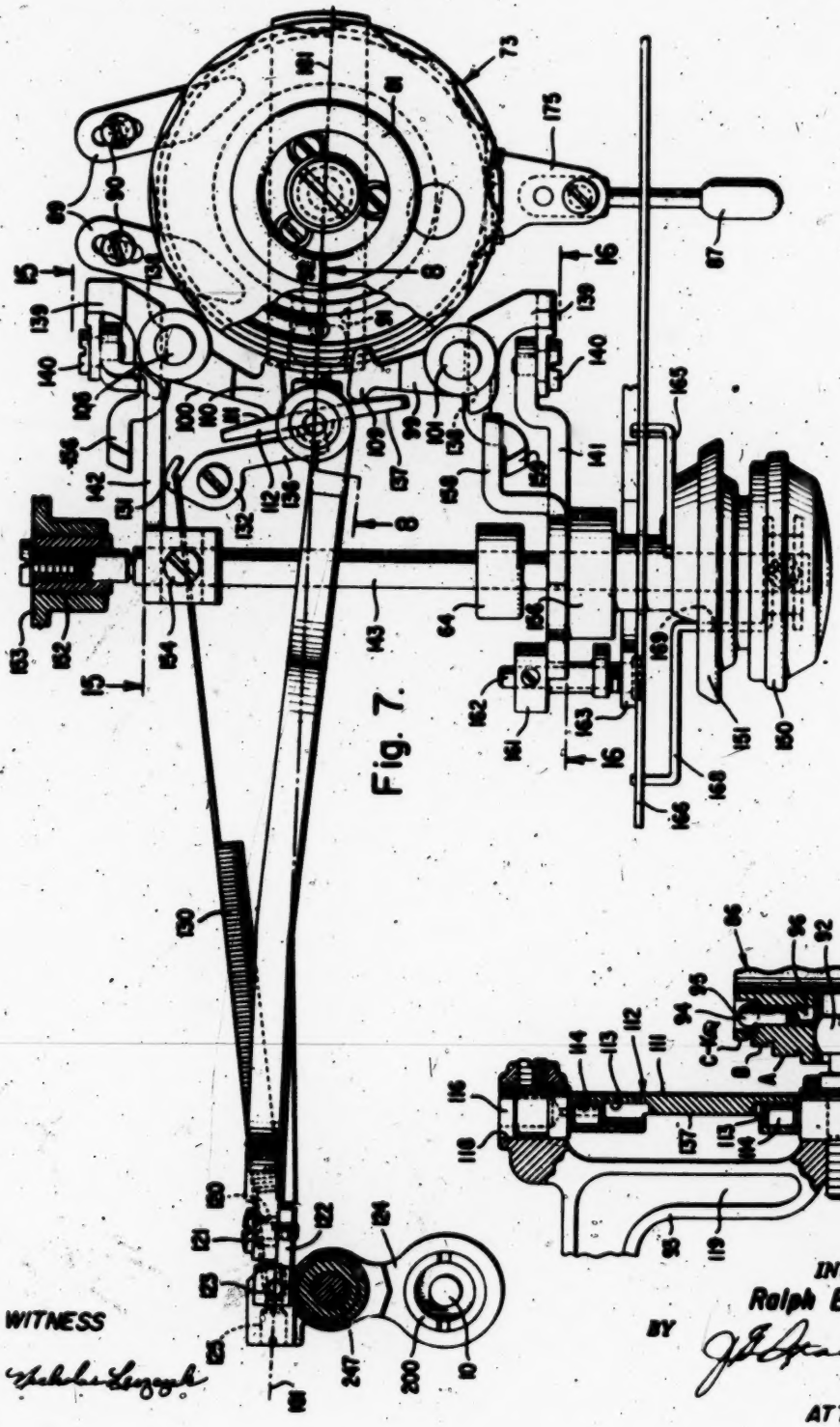

Fig. 7.

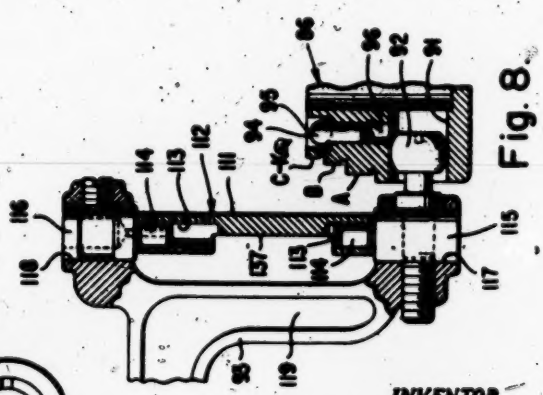

Fig. 8.

WITNESS

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

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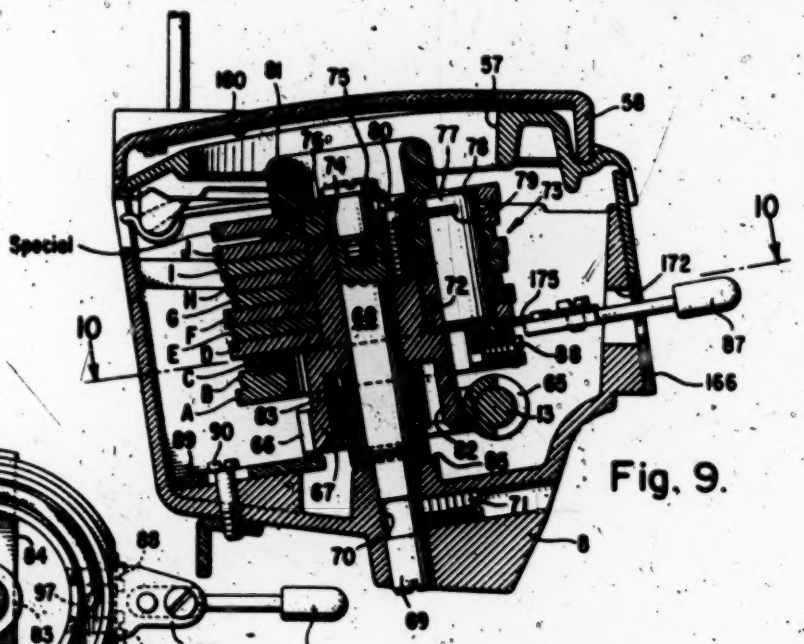

Fig. 9.

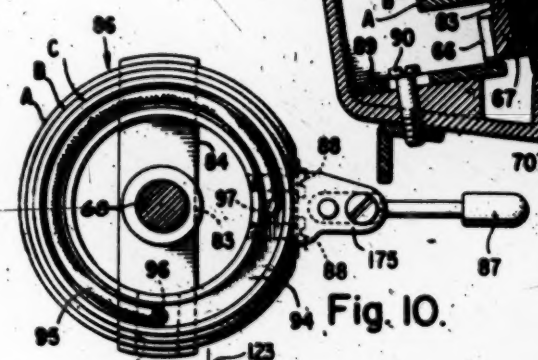

Fig. 10.

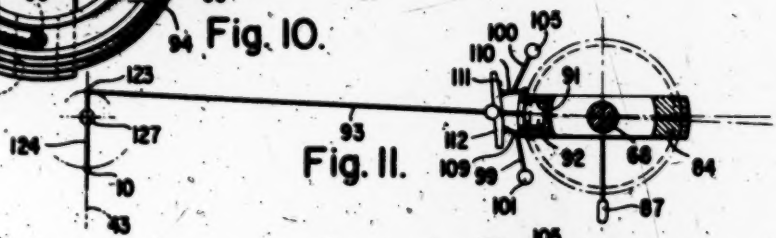

Fig. 11.

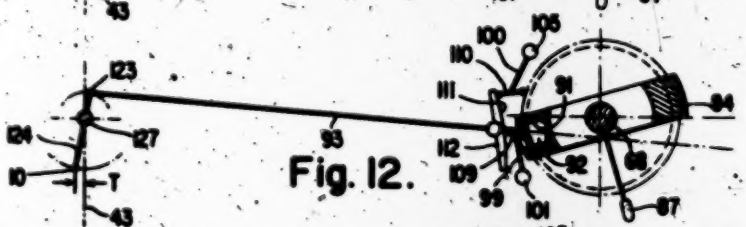

Fig. 12.

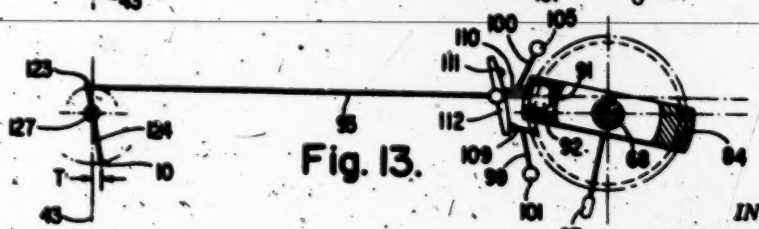

Fig. 13.

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ORNAMENTAL STITCH SEWING MACHINES

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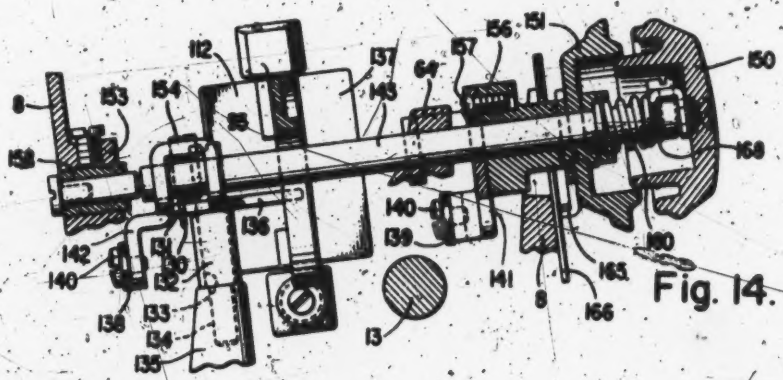


Fig. 14.

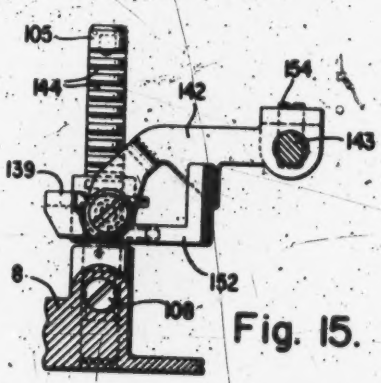
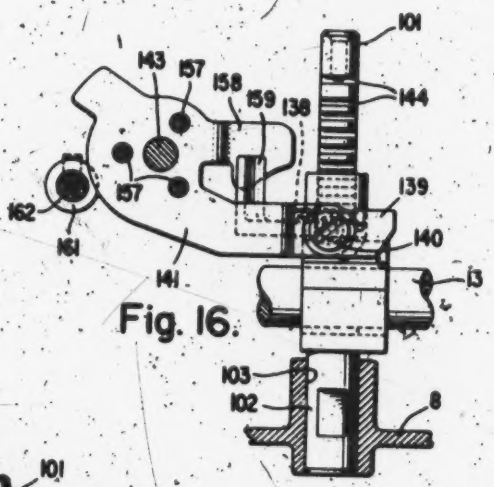


Fig. 15.



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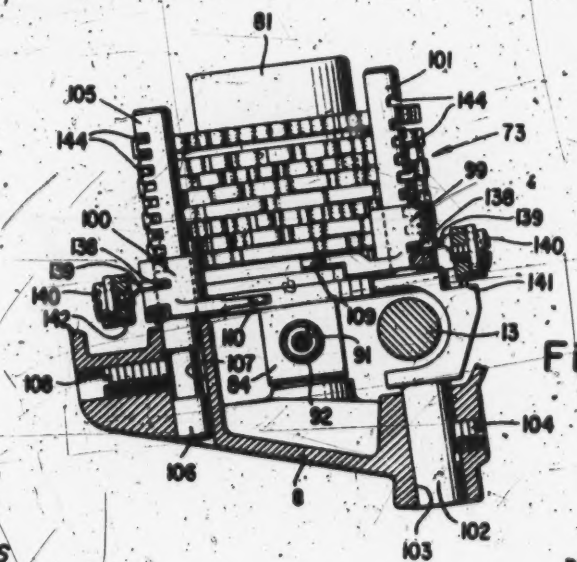

Fig. 17.

WITNESS

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

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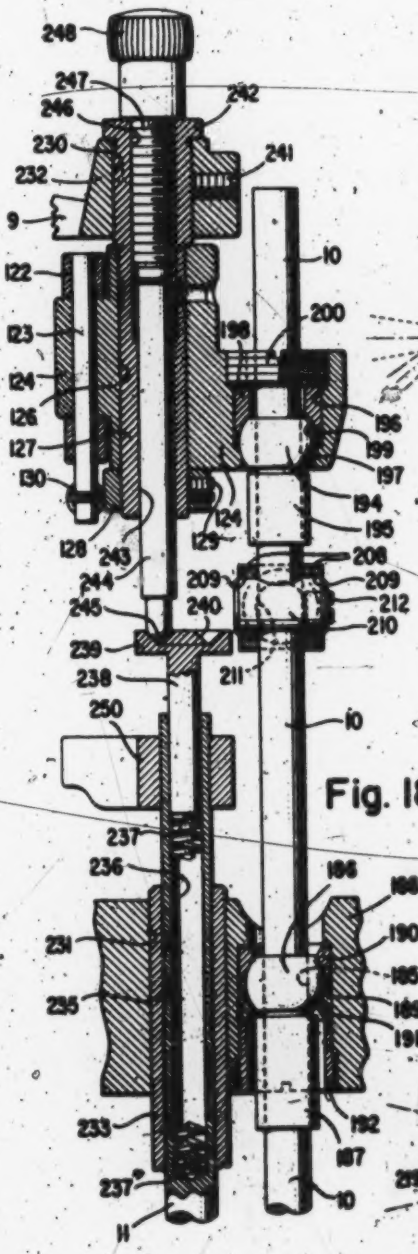

Fig. 18.

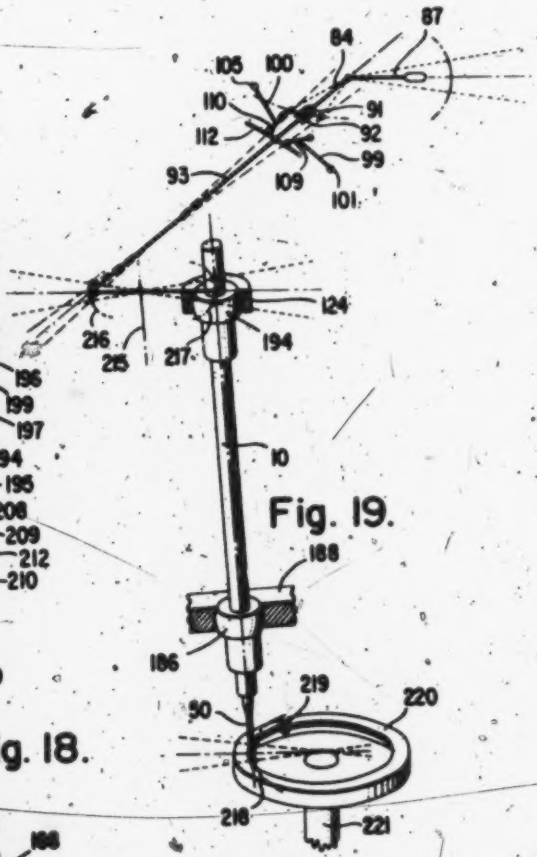

Fig. 19.

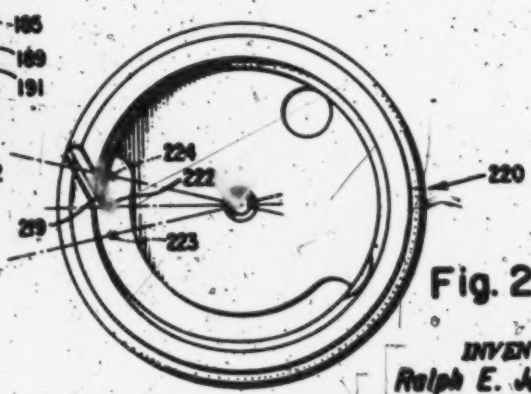

Fig. 20.

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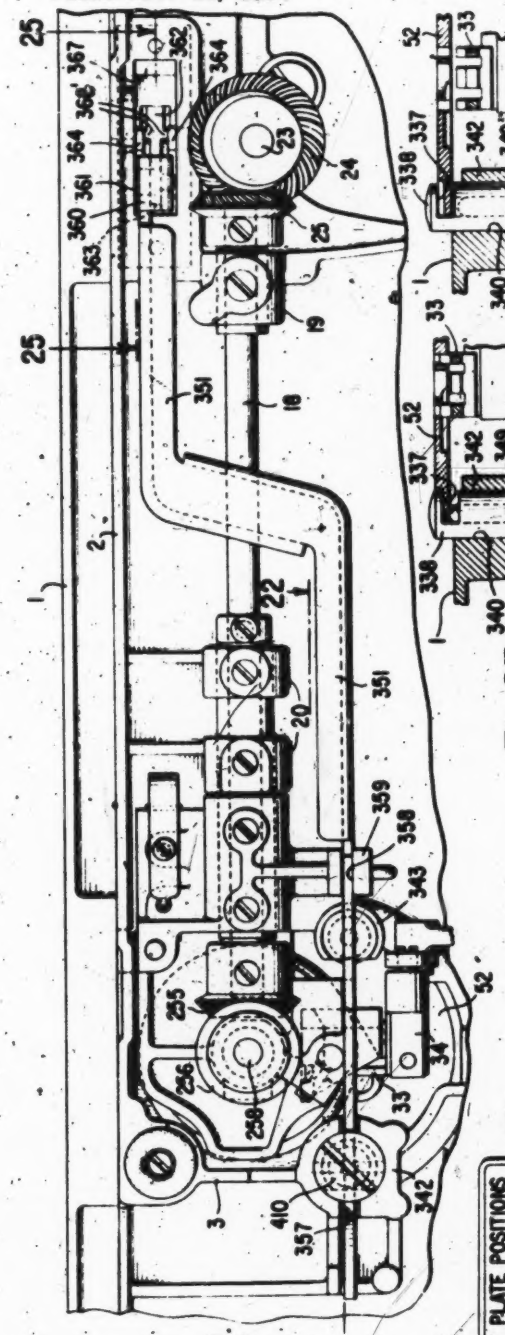
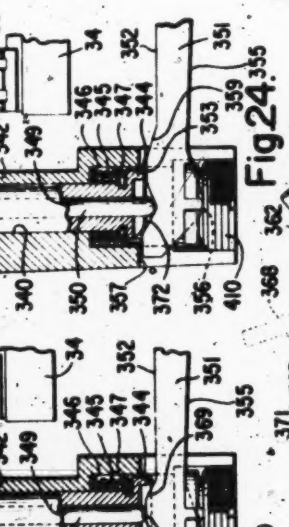


Fig. 21.



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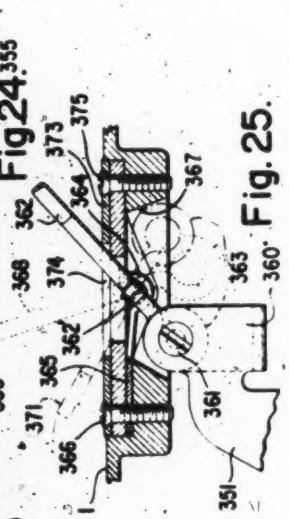

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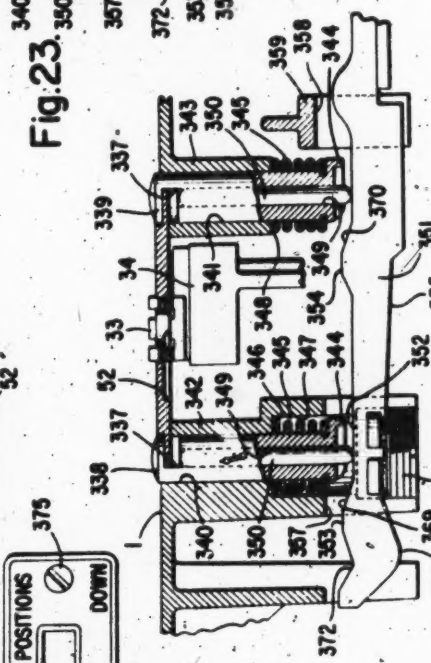

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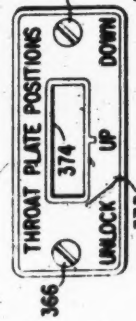

Fig. 26

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

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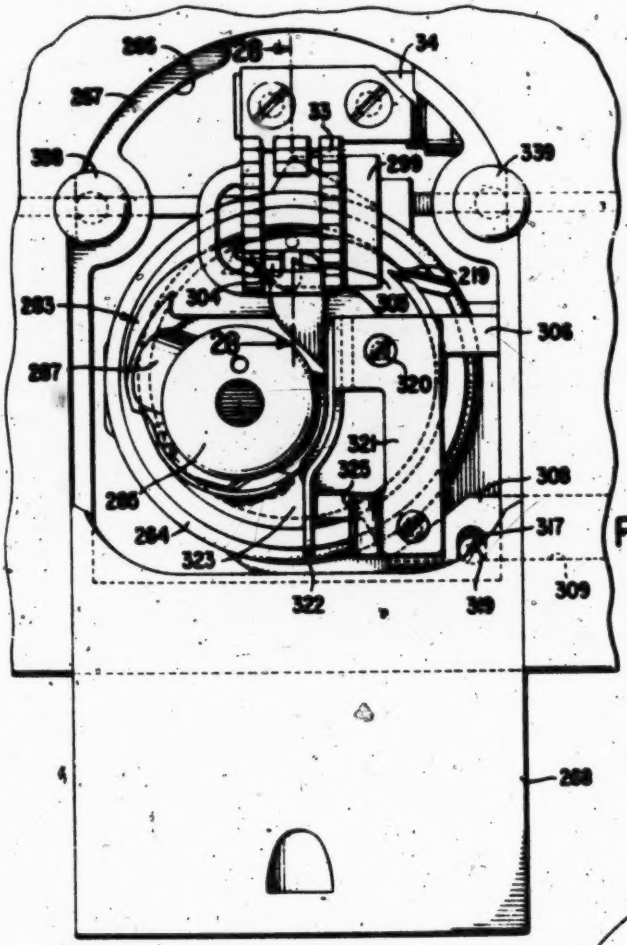
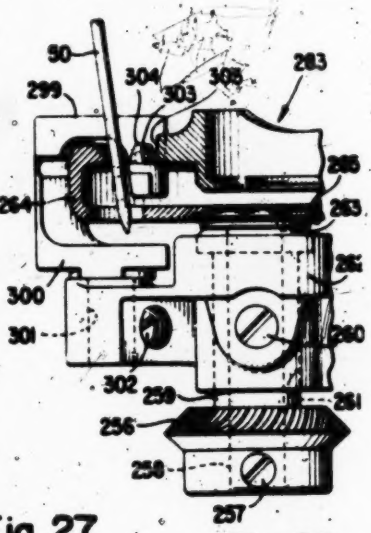


Fig. 27.



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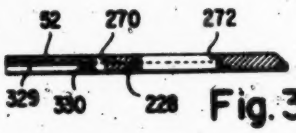
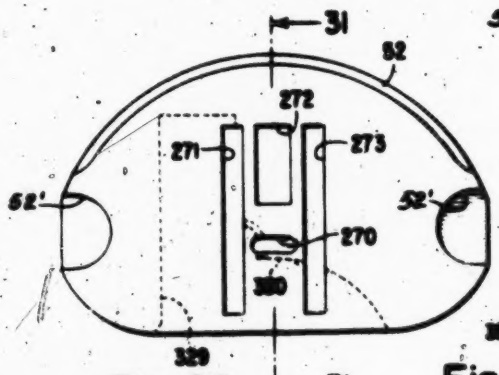


Fig. 31.



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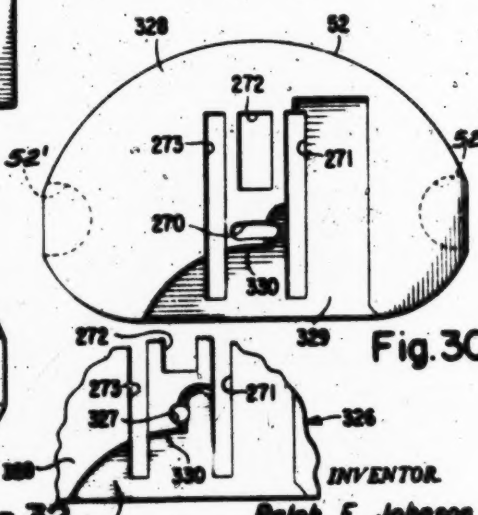

Fig. 30.

Fig. 32.

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

Filed Nov. 29, 1954 15 Sheets-Sheet 11

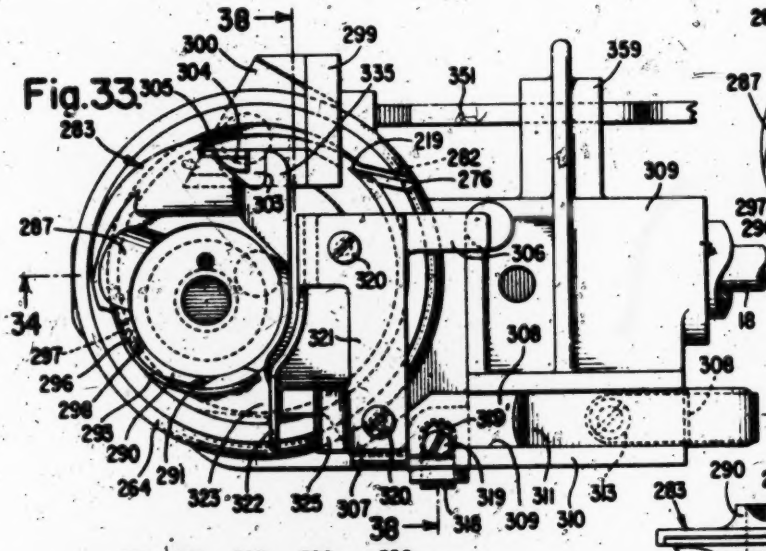

Fig. 33.

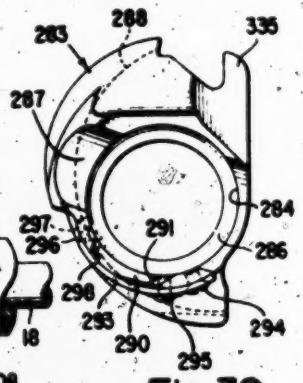

Fig. 39.

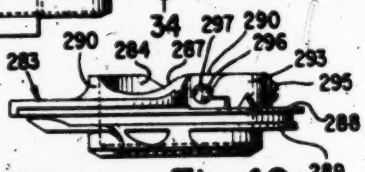

Fig. 40.

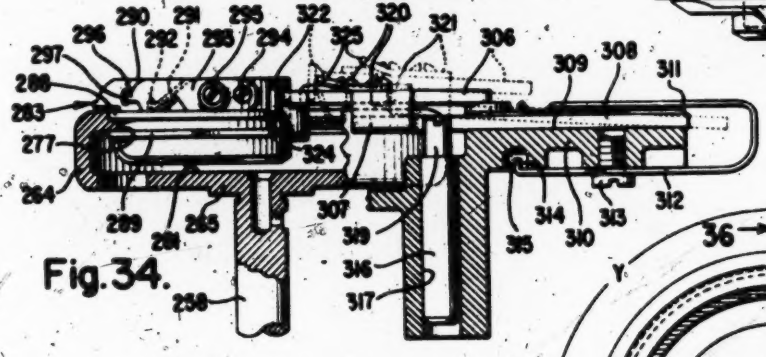

Fig. 34.

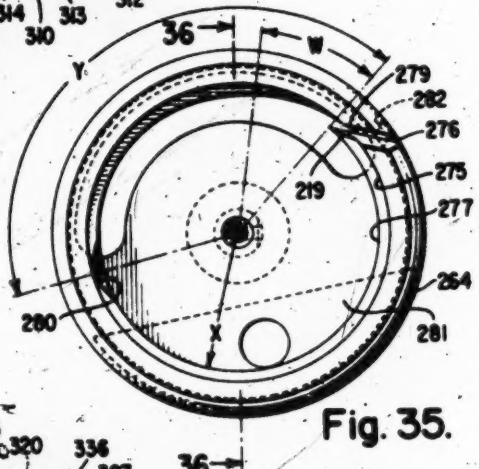

Fig. 35.

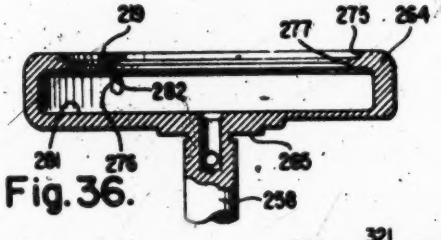

Fig. 36.
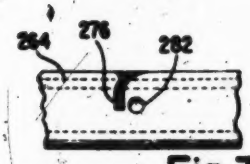
Fig. 37.

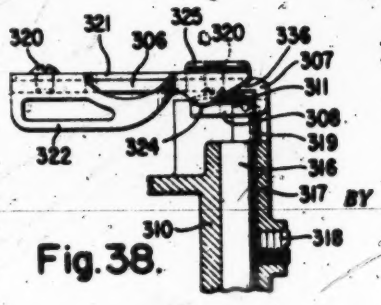

Fig. 38.

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WITNESS

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ORNAMENTAL STITCH SEWING MACHINES

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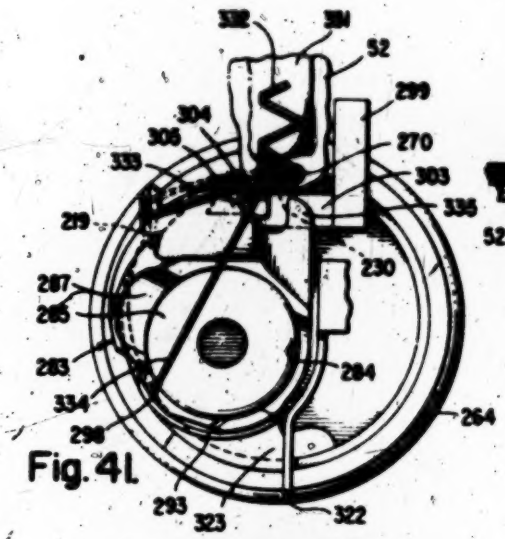

Fig. 41.

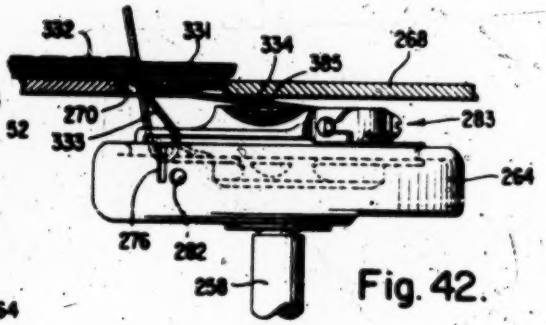

Fig. 42.

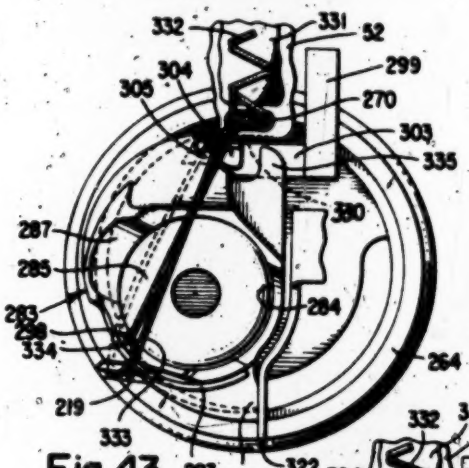

Fig. 43.

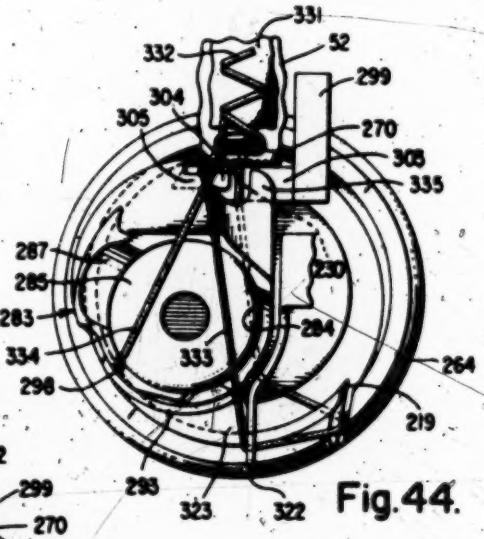

Fig. 44.

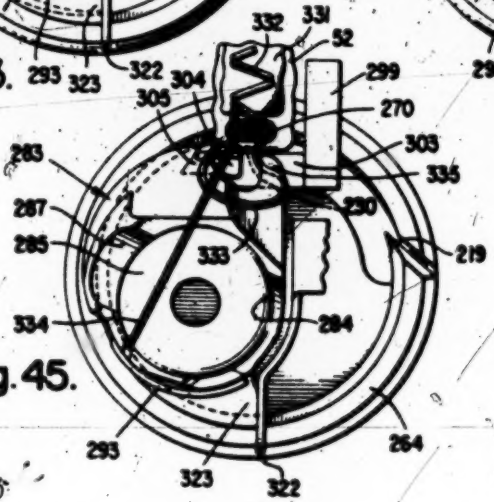

Fig. 45.

WITNESS

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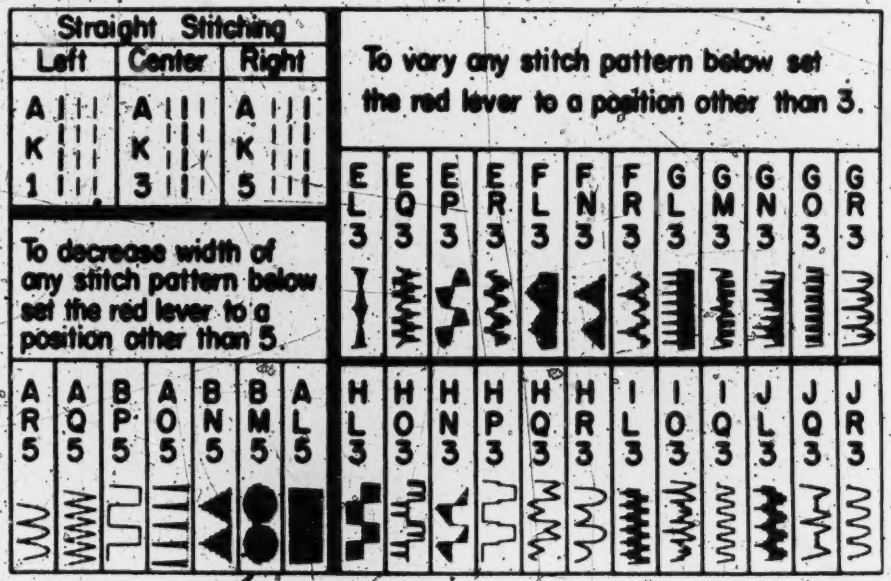

Fig. 46.

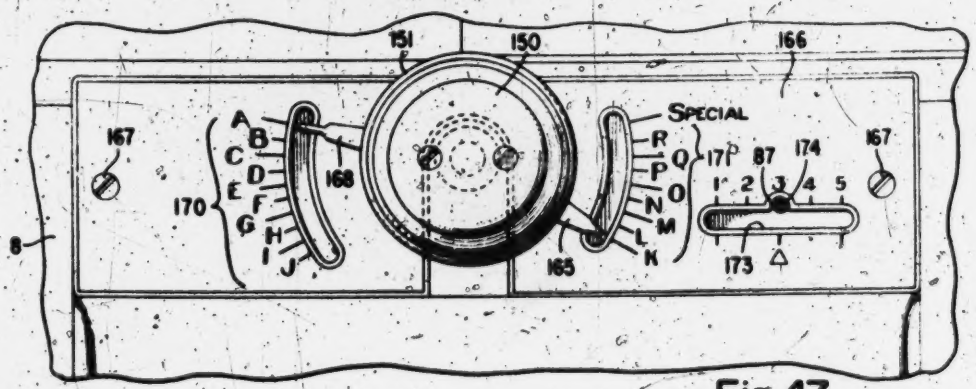

Fig. 47.

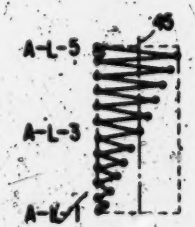

Fig. 48.

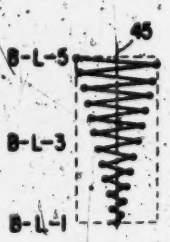

Fig. 49.

Fig. 50.

WITNESS
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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

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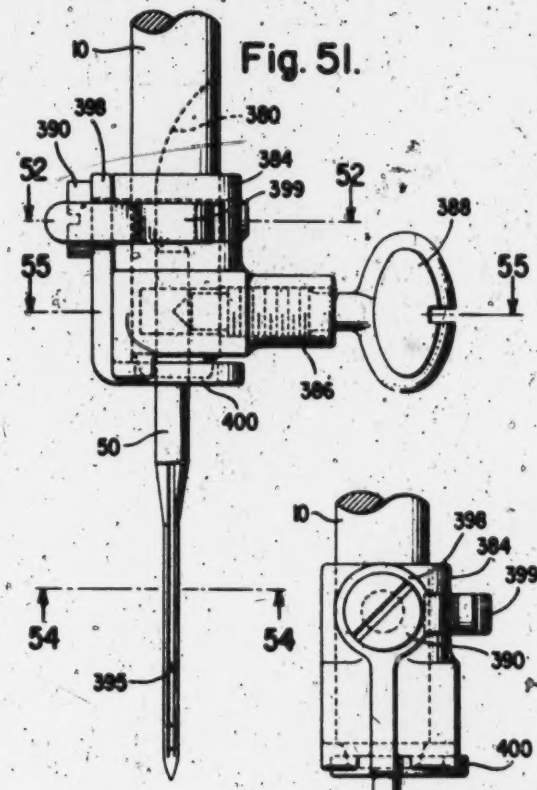

Fig. 51.

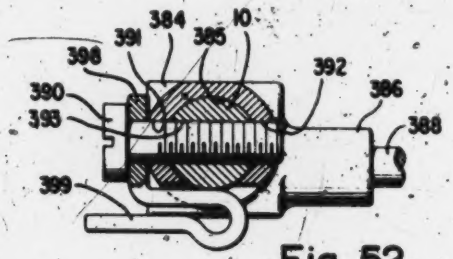

Fig. 52.

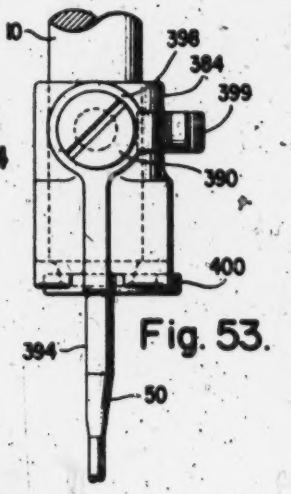

Fig. 53.

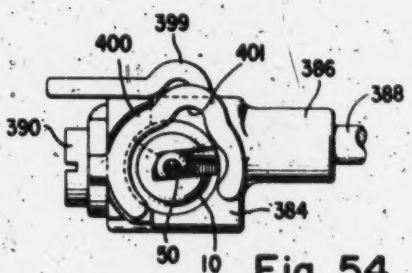

Fig. 54.

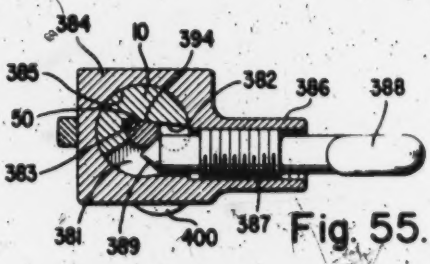

Fig. 55.

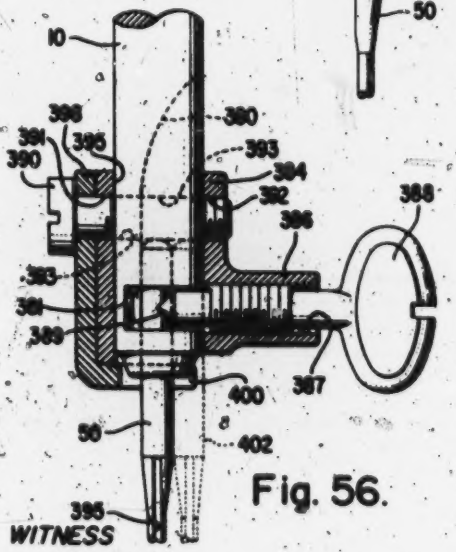

Fig. 56.

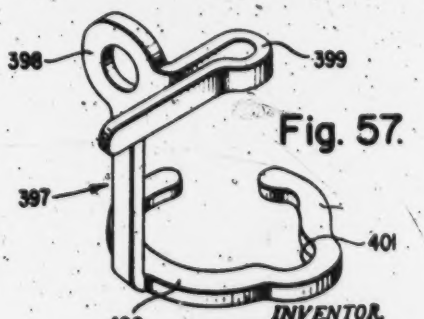

Fig. 57.

WITNESS

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Dec. 2, 1958 R. E. JOHNSON 2,862,468

ORNAMENTAL STITCH SEWING MACHINES

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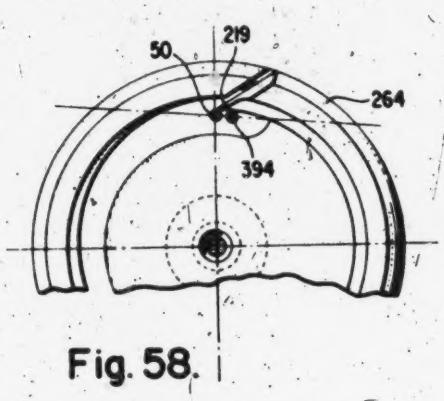

Fig. 58.

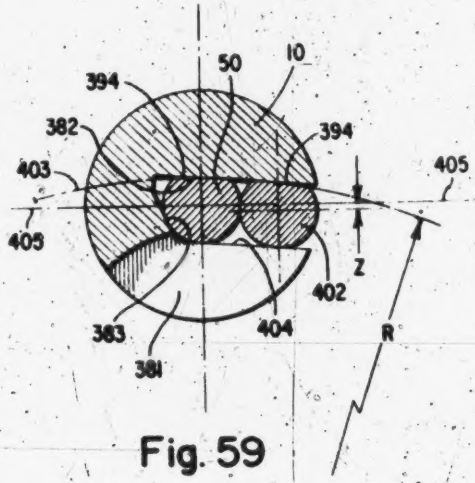

Fig. 59

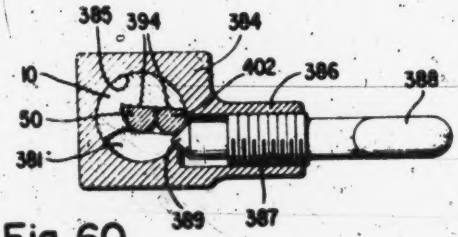

Fig. 60.

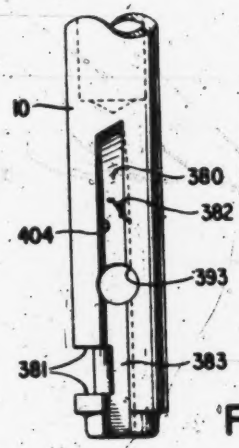

Fig. 61.

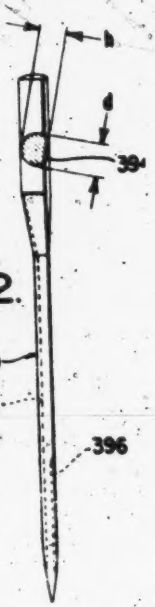

Fig. 62.

WITNESS

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United States Patent Office

2,862,468

Patented Dec. 2, 1958

2,862,468

ORNAMENTAL STITCH SEWING MACHINES

Ralph E. Johnson, Mountainside, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application November 29, 1954, Serial No. 471,766

27 Claims. (Cl. 112—158)

This invention relates to improvements in ornamental stitch sewing machines and has for an object to provide such a machine with novel mechanism whereby the machine can be made to produce a large number of ornamental designs without any change in the construction of the machine.

A more specific object of the present invention is to provide a zigzag stitch type ornamental stitch sewing machine with a plurality of different response-producing records for controlling the actions of the zigzag stitch mechanism and means whereby such records may be selectively employed in different combinations for effecting various patterns of ornamental stitches.

Another object of the present invention is to provide a sewing machine with a novel stitch forming mechanism including rotary loop-taker and reciprocatory needle-bar mechanisms which cooperate together in the formation of lock stitches.

Another object of the present invention is to provide a sewing machine with a novel and meritorious presser-bar mechanism for effectively maintaining the work material in proper relation with the work-supporting bed of a sewing machine.

A further object of the invention is to provide a sewing machine with novel means for rendering the work-feeding mechanism ineffective at the will of the operator.

Yet another object of the present invention is to provide a sewing machine with novel means for clamping either one or a pair of needles to a reciprocatory needle-bar mechanism.

With the above and other objects in view, the invention comprises the devices, combinations and arrangements of parts hereinafter described in connection with the accompanying drawings which illustrate a preferred embodiment of the invention from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the drawings,

Fig. 1 represents a front perspective view of a sewing machine in which the present invention is embodied.

Fig. 2 represents a side elevational view in axial cross-section of the sewing machine illustrated in Fig. 1.

Fig. 3 represents a top plan view of the sewing machine disclosed in Fig. 1 with the cover plate removed therefrom.

Fig. 4 represents a fragmentary elevational view of the actuating drive for the needle-bar.

Fig. 5 represents a sectional view taken substantially along the line 5—5 of Fig. 2.

Fig. 6 represents a sectional view of the machine taken substantially along the line 6—6 of Fig. 3, and illustrating a portion of the needle-bar mechanism.

Fig. 7 represents, on an enlarged scale, a portion of the mechanism as is illustrated in Fig. 3.

Fig. 8 represents a sectional view taken substantially along the line 8—8 of Fig. 7.

Fig. 9 represents a sectional view taken substantially along the line 9—9 of Fig. 3.

Fig. 10 represents a sectional view taken substantially along the line 10—10 of Fig. 9.

Figs. 11, 12 and 13, inclusive, represent diagrammatic views illustrating various positions of the mechanism disclosed essentially in Fig. 7.

Fig. 14 represents, on an enlarged scale, a sectional view taken substantially along the line 14—14 of Fig. 3.

Fig. 15 represents, on a reduced scale, a sectional view taken substantially along line 15—15 of Fig. 7.

Fig. 16 represents, on a reduced scale, a sectional view taken substantially along the line 16—16 of Fig. 7.

Fig. 17 represents, on a reduced scale, a sectional view taken substantially along the line 17—17 of Fig. 3.

Fig. 18 represents, on an enlarged scale, a sectional view taken along the line 18—18 of Fig. 3.

Fig. 19 represents a diagrammatic view illustrating the paths of movement through which the needle-bar is operated with respect to the rotary loop-taker and the needle-bar actuating mechanism.

Fig. 20 represents a top plan view of the rotary loop-taker with its internal mechanisms removed therefrom.

Fig. 21 represents, on an enlarged scale, a fragmentary bottom plan view of the machine as illustrated in Fig. 1 with the bottom cover plate removed therefrom.

Fig. 22 represents, on an enlarged scale, a sectional view taken substantially along the line 22—22 of Fig. 21.

Figs. 23 and 24 represent a portion of the throat-plate lifting mechanism in different stages of its operation.

Fig. 25 represents, on an enlarged scale, a sectional view taken substantially along the line 25—25 of Fig. 21.

Fig. 26 illustrates an indicia plate which, as illustrated in Fig. 1, is adapted to be secured to the bed of the sewing machine proper.

Fig. 27 represents a top plan view of a fragmentary portion of the sewing machine bed illustrating a portion of the bed with its slide plate partially removed and with its throat plate entirely removed so as to expose the loop-taking mechanism.

Fig. 28 represents a sectional view taken substantially along the line 28—28 of Fig. 27.

Fig. 29 represents a top plan view of a throat-plate which is provided with an aperture adapted for the reception of a laterally vibratory needle.

Fig. 30 represents a bottom plan view of the throat-plate illustrated in Fig. 29.

Fig. 31 represents a sectional view taken substantially along the line 31—31 of Fig. 29.

Fig. 32 represents a fragmentary bottom plan view comparable to Fig. 30 but illustrating a throat-plate of the type having a circular aperture adapted for the reception of a needle which is not shifted laterally.

Fig. 33 represents a top plan view of the rotary loop-taking mechanism, together with the means whereby the bobbin carrier is maintained in proper position within the rotary loop-taker.

Fig. 34 represents a sectional view taken substantially along the line 34—34 of Fig. 33.

Fig. 35 represents a top plan view of the rotary loop-taking element.

Fig. 36 represents a sectional view taken substantially along the line 36—36 of Fig. 35.

Fig. 37 is a fragmentary view of a portion of the rotary loop-taker and illustrating the manner in which the hook beak is formed.

Fig. 38 represents a fragmentary sectional view taken substantially along the line 38—38 of Fig. 33.

Fig. 39 represents a top plan view of the bobbin carrier

Fig. 40 represents a front elevation view of the bobbin carrier disclosed in Fig. 39.

Fig. 41 represents a top plan view of the rotary loop-taker and illustrating a portion of the work-supporting bed and a piece of work material with the loop-taker being shown as having just caught the needle-thread loop.

Fig. 42 represents an elevation view taken of the left side of the loop-taker as illustrated in Fig. 41.

Fig. 43 is similar to Fig. 41, but illustrates the rotary loop-taker as having rotated about the bobbin-carrier so as to expand the needle-thread loop about the latter element.

Fig. 44 represents a top plan view similar to that disclosed in Figs. 41 and 43 and illustrating the loop-taker in that position wherein the needle-thread loop has been expanded about the bobbin-carrier and is in a position where it is about ready to be cast off from the bobbin-carrier.

Fig. 45, like Figs. 41 to 44 inclusive, illustrates a top plan view of the rotary loop-taker and shows the loop-taker in the position it assumes just after the needle-thread loop has been cast off the bobbin-carrier and is being taken up by the so-called needle-thread take-up mechanism.

Fig. 46 represents an instruction plate of the type secured to the interior portion of the top cover plate for the purpose of instructing the operator in the setting of the various controls for the ornamental stitch mechanism of the present machine.

Fig. 47 represents an elevational view of the indicia plate which surrounds the hand contro's of the present machine.

Figs. 48, 49 and 50 each illustrates a pattern of ornamental stitching which may be produced on the present machine.

Fig. 51 represents a side elevational view of a portion of the sewing machine needle-bar and its associated needle clamp.

Fig. 52 represents a sectional view taken substantially along the line 52—52 of Fig. 51.

Fig. 53 represents a left side elevational view of the mechanism disclosed in Fig. 51.

Fig. 54 represents a sectional view taken substantially along the line 54—54 of Fig. 51.

Fig. 55 represents a sectional view taken substantially along the line 55—55 of Fig. 51.

Fig. 56 represents a vertical sectional view of the mechanism disclosed in Fig. 51.

Fig. 57 represents a perspective view of a needle-thread guide element which is adapted to be secured to the needle clamp mechanism in a manner as is best disclosed in Fig. 51.

Fig. 58 represents a fragmentary top plan view of the rotary loop-taker mechanism and shows the relation between the twin needles and the loop-taker.

Fig. 59 represents a view similar to Fig. 55 and shows the needle-bar clamp as provided with a pair of twin needles.

Fig. 60 is similar to Fig. 55 but illustrates the needle-clamping mechanism as being provided with two needles instead of one.

Fig. 61 represents a right side elevational view of the needle bar shown in Fig. 51.

Fig. 62 represents a side elevational view of a typical type of sewing machine needle which is employed in the present machine.

General sewing machine structure

As illustrated in the drawings, the frame of the sewing machine in which the present invention is incorporated comprises a substantially rectangular shaped base 1 forming at its upper side a work-supporting surface or bed plate and provided at its under side with a plurality of downwardly extending side walls 2—2 and end walls 3—3 forming a box-like enclosure, the downwardly facing opening of which is normally closed by a bottom cover plate 4 held in place by a thumb nut 5 threaded over a stud 6 extending downwardly from the under face of the base 1.

Suitably secured upon the hollow bed 1 is a vertically disposed hollow standard 7 which carries an overhanging bracket-arm 8 terminating in a hollow head 9 in which is mounted a reciprocatory needle-bar 10 and presser-bar 11. The upper part of the bracket-arm 8 is closed by a cover-plate 12 held in place by screws not herein shown. A main driving shaft 13 disposed within and lengthwise of the overhanging bracket-arm 8 is journaled in bearings 14 and 15 (see Figs. 2 and 3) which are secured in the sewing machine frame forming a part of the bracket-arm 8. The arm standard end of the shaft 13 is connected with a hand wheel 16 in a manner which is best disclosed in U. S. Patent No. 2,617,375, dated November 11, 1952.

Also secured to the main shaft 13 in a manner as is disclosed in the above noted patent is a gear 17. The main shaft 13, as is hereinafter described in more detail, drives the needle-bar 10 carried in the head 9. A loop-taker actuating shaft 18 (see Fig. 21) journaled in suitable bearings 19 and 20 mounted in the base of the machine is driven by the main shaft 13 through bevel gears 21 and 22, shaft 23, and bevel gears 24 and 25. A pair of actuating eccentrics 26 and 27 are formed integral with the gear 21 and the combination is held in place upon the shaft 13 by a set screw 28. The eccentrics 26 and 27 actuate pitmans 29 and 30 respectively, and these in turn actuate rock-shafts 31 and 32 (see Fig. 5) in a conventional manner. These rock-shafts 31 and 32 impart the usual feeding movements to a conventional feed-dog 33 by way of a feed-bar 34 which is connected with the shafts 31 and 32 by cranks 35 and 36 of which the latter is connected to the bar 34 by means of a link 37.

The arm standard 7 is especially designed to provide adequate space for housing sewing machine parts. To this end, the arm standard is made in substantially the shape of a pyramid, the lower portion of the standard being larger than the upper portion. Within the lower portion of the standard is provided a housing generally designated by the numeral 38 in which is mounted a vertically disposed electric motor 39. As is best disclosed in the above noted Patent No. 2,617,375, the arm standard 7 of the present machine is provided with a hollow cylindrical wall portion 40 for receiving the extended distal end of the motor drive shaft, the upper portion of which is designated by the numeral 41 and is illustrated in Fig. 3. This distal end portion 41 of the main shaft carries a spiral gear 42 which meshes with the gear 17 carried by the main shaft 13 for the purpose of driving the main shaft 13. From this, it is to be understood that the motor 39 functions to drive the main shaft 13 which, through the medium of the upright shaft 23 and the pitmans 29 and 30, actuates the lower rotary shaft 18, as well as the feed rock-shafts 31 and 32.

As may be best seen in Fig. 1, the present machine is provided with a conventional form of stitch-length control lever 45 which projects into the hollow standard 7 and is pivotally mounted therein upon a pivot pin 46 and is formed with a guideway 47 which is tracked by a pin 48 carried by the pitman 29. Thus, as the lever 45 is shifted about the pin 46, it will lengthen or shorten the effective throw of the feeding mechanism or reverse the action thereof all in a manner which is well known. Co-operating with the hand lever 45 is an indicia plate 49 which affords the operator a visual indication as to the stitch-length setting.

Referring to Fig. 1, the needle-bar 10 is provided with a conventional eye-pointed needle 50 which is adapted to cooperate in the formation of lock-stitches with a rotary loop-taker disposed beneath the bed-plate 1. Mounted upon the lower end of the presser-bar 11 is a conventional

type of presser-foot 51 which cooperates with a throat-plate 52 and the feed-dog 33 in the feeding of the work over the work-support 1 and away from the operator. The throat-plate 52 is carried by the work-support 1.

Referring particularly to Figs. 1, 2 and 3, the open end of the head 9 is covered over by means of a face-plate 53 which is hinged to the rear portion of the frame 9 by means of vertical pins 54, 54 (see Figs. 3 and 5), whereby the plate 53 may be grasped by an ear 55 and swung back and forth from an opened to a closed position thereby to provide access to the internal portion of the head 9.

The forward end portion of the main shaft 13 extends in the conventional manner into the hollow head 9 for the purpose of reciprocating the needle-thread take-up arm 56.

Referring particularly to Figs. 1 and 2, an intermediate portion of the cover-plate 12 is provided with an opening 57 which is normally closed by a plate 58 which is hinged in a manner not herein shown at its rearward portion thereby to permit the operator to gain access to the internal portion of the machine for purposes which will hereinafter be described.

With reference to Fig. 1, the intermediate portion of the bracket-arm 8 is provided with a light shade 59 beneath which is disposed the usual sewing light bulb 60, which lighting mechanism together with its shade 59 is shown in the U. S. Patent No. 2,677,042, dated April 27, 1954.

Ornamental stitch mechanism

The machine, in accordance with the present invention, comprises a zigzag type of needle-bar 10 which is adapted, in addition to being reciprocated in a direction of its length, to be periodically shifted back and forth laterally of the direction of work feed to produce in cooperation with the rotary loop-taker zigzag stitches. In accordance with the present invention, the machine is provided with a group of stacked or nested cams which are rotated in synchronism with the movements of the needle-bar, a pair of cam followers which are adapted to track various combinations of the cams, and means for integrating the movements of the two cam followers and for transferring such integrated movements to the needle-bar mechanism for the purpose of moving it back and forth laterally of the direction of needle feed. Also, the present machine is provided with operator-influenced means for shifting the cam followers thereby to permit the operator to select various cams for the purpose of effecting different patterns of movement of the needle-bar. It is to be particularly understood that each of the cams of the group of cams is different from its associate cams so that each cam in effect represents a different pattern of ornamental stitch movement of the needle-bar. In this connection, it is to be further appreciated that with two cam followers various cams may be selected to operate simultaneously to the end that a great variety of ornamental stitches may be performed with the present mechanism.

Referring particularly to Figs. 2, 3, 7 and 9, the main rotary shaft 13 is provided intermediate its ends with a worm gear 65 which meshes with a wheel gear 66 formed integrally with a sleeve 67 rotatably mounted upon a cylindrical stud 68 whose lower portion 69 is mounted within an aperture 70 formed in the bracket-arm 8. A set screw 71 locks the member 69 in a fixed position. From this, it is to be understood that rotation of the main shaft 13 will, through the gears 65 and 66, rotate the sleeve 67 about the member 68.

Referring particularly to Fig. 9, the sleeve 67 is provided with a shoulder 72 upon which rests a stack of eight different cams which are generally designated by the numeral 73. These cams 73 are centrally apertured so as to be snugly fitted about the upper cylindrical portion 74 of the member 67 and of these cams the lower seven are adapted to be clamped to the sleeve member 67 by means of a shoulder screw 75 which is threaded within the upper portion of the member 68 and which bears against a retaining plate 76 for the purpose of locking the lower seven cams against the aforementioned sleeve shoulder 72 thereby to insure that all of these cams will rotate in synchronism with the sleeve 67.

In order to time the various cams properly, there is provided a timing pin 77 which is snugly received within an aligned aperture 78 formed within each of the various cams. This locking pin is maintained in a fixed vertical position due to the fact that it is provided with a slot 79 which is entered by a peripheral portion of the retaining member 76. The plate 76 is in turn secured to the sleeve 67 by three screws 80—80 each of which is threaded directly into the upper portion of the sleeve 67 in a manner as best disclosed in Fig. 9.

Resting upon the retaining plate 76 is the upper or eighth cam member, designated by the word "Special," which, like the remaining cam elements, is provided with an aperture 78 which receives the locking pin 77. This upper cam member is provided with a collar 81 which is integrally secured to the cam so that an operator may, after lifting the cover 58, remove this cam and replace it with other selected cams. Quite obviously, however, this upper cam with its handle member 81 will rotate in synchronism with the remaining cams which make up the cam group 73 for the reason that it is mated with the locking pin 77. The structure of this upper cam and its handle member 81 is disclosed and claimed in my copending U. S. continuation-in-part patent application Serial No. 636,023, filed January 24, 1957.

As may be best observed from Fig. 9, the lower portion of the sleeve 67 is provided with a large bore 82 within which is disposed a boss portion 83 of a combined needle bight and field selector member 84. The boss 83 is turnably mounted upon the vertical pin 68 and it rests upon a shoulder 85 of the sewing machine bracket-arm frame 8. The oppositely disposed end portions of the member 84 carry in a manner as is best disclosed in Figs. 2, 8, 9 and 10, a circular compound cam member which is generally designated by the numeral 86. As will later be described in further detail, the member 86 is provided with three stepped concentric cam faces A, B and C and projecting from a peripheral portion thereof is a needle bight and field selector arm 87 which is secured thereto by means of a screw 88. It is to be understood that the arm 87 provides an operator-influenced means whereby the entire member 84 with its cam portion 86 may be shifted back and forth about the pivot member 68.

As is best disclosed in Figs. 3, 7 and 9, the interior portion of the bracket-arm 8 is provided with a pair of stop arms 89—89, each of which is adjustably secured to the bracket-arm by means of a screw 90. From Fig. 7, it is to be understood that the arms 89—89 cooperate with the needle bight and field selector member 84 so as to limit the rotary movements thereof.

Referring particularly to Figs. 2, 8 and 10, the needle bight and field selector member 84 is provided at its peripheral portion with a radially disposed cylindrical guide aperture 91 which is adapted to receive for purposes hereinafter described a spherical guide head 92 which is carried by the link or pitman member 93. Still referring to Figs. 7, 8, 9 and 10, the upper portion of the three-part cam member 86 is formed with a recess 94 within which is disposed a lubricating wick 95, the opposite end portions of which depend downwardly into a pair of apertures 96 and 97. As may be best seen in Fig. 3, all of the cams 73 are provided with an aligned aperture 98 which is disposed over the wick 95 so as to permit the operator to oil the wick from an oil can in the usual fashion and thereafter the wick will function to lubricate various parts of the sewing machine including the aforesaid guide ball 92 of the pitman 93.

Cooperating with the stacked cams 73 are a pair of cam followers 99 and 100 of which the forward follower 99 is slidably and rotatably mounted

post 101, the lower portion 102 of which is mounted within an aperture 103 formed in the bracket-arm 8 and is locked in position by means of a set screw 104. The rear cam follower 100 is similarly rotatably and slidably mounted upon an upright post 105 whose lower end 106 is secured within an aperture 107 formed in the bracket-arm 8 by means of a set screw 108. The free end portions 109 and 110 of the cam followers 99 and 100 are adapted to engage the peripheral portions of the aforementioned cams 73 and 86, as well as the substantially vertically disposed front face 111 of a motion-integrating plate which is generally designated by the numeral 112. As is best disclosed in Fig. 8, the plate 112 is provided with a pair of vertically aligned apertures 113, 113 which are pivotally mounted upon pins 114 carried on the end of cylindrical members 115 and 116 which are respectively mounted in apertures 117 and 118 provided in the forked end portion 119 of the aforesaid pitman 93. From this, it is to be understood that the plate 112 is pivoted in the manner of a trunnion upon the pins 114, 114.

Opposite the forked end 119 of the pitman 93, the latter member is provided with a pair of apertures 120—120 through which pass cap screws 121—121 which function adjustably to lock that end of the pitman to a C-shaped block 122 in a manner such that the pitman 93 may be shifted lengthwise of itself and relative to the block 122 for adjustment purposes. Referring particularly to Figs. 2, 7 and 18, it is to be understood that the C-shaped block 122 has the free end portions of its limbs pivotally receiving a pin 123 whose intermediate portion is locked within a crank or needle-bar gate 124 by way of set screws 125—125. This gate 124 is apertured as at 126 so as to be pivotally mounted upon a depending cylindrical member 127 in a manner as will be hereinafter described in further detail. The gate member 124 is maintained in a proper upright position upon the member 127 by way of a collar 128 which is fastened to the member 127 by a set screw 129. From the above, it is to be understood that the gtae 124 affords a pivotal connection which will permit the left hand end of the pitman 93, as viewed in Fig. 7, to shift endwise of itself for the purpose of shifting the needle-bar 10 back and forth laterally of the direction of work feed in a manner as will be described hereinafter in further detail.

Referring particularly to Figs. 2, 7 and 18, the pitman 93 is adapted to be spring biased at all times in a right-hand direction as is viewed in Fig. 7 by way of a coil spring 130 which has its one end portion wrapped about a distal end portion of the pivot pin 123 while its other end portion is anchored to an arm 131 of a pivot member 132 which, as is illustrated in Fig. 14, is pivotally mounted upon the cylindrical portion 133 of a pin whose reduced lower end portion 134 is anchored in a boss 135 provided in the interior portion of the bracket-arm 8. The member 132 is provided with another arm portion 136 which, as illustrated in Fig. 7, is adapted to engage the rear face 137 of the motion-integrating plate 112 so as to bias the plate together with the pitman 93 in a right-hand direction toward the cam followers 99 and 100, thereby to force such followers into engagement with various selected cams of the cam group 73 or 86.

Each of the cam followers 99 and 100 is adapted to be shifted up and down along its associated post 101 or 105 so that it may be brought in engagement with a respective one of the cams for the purpose of imparting various patterns of movement to the pitman 93 and subsequently to the laterally shiftable needle 10. Referring particularly to Figs. 7 and 17, each of the cam followers 99 and 100 is provided with a slot 138 which is adapted to receive a knife-like element 139 secured by means of a screw 140 to a respective one of a pair of cam-selector arms 141 and 142 which are in turn mounted upon a cross-shaft designated by the numeral 143.

It is to be particularly observed that each of the substantially upright posts 101 and 105 upon which the cam followers are respectively mounted is provided with a plurality of slots 144—144, which are so arranged that whenever either one of the cam selector fingers 139—139 is engaged within one of such slots its respective cam follower 99 or 100 has its tracking element 109 or 110 properly engaging a respective one of the various cams 73 and 86. Furthermore, as hereinabove noted, the coil spring 130, by bearing against the arm 131, will urge the motion-integrating plate 112 against each of the tracking elements 109 and 110 so as to, in turn, force these elements into engagement with a selective pair of the cams. The movements of the cams in response to the rotation of the main shaft 13 will, of course, oscillate the cam followers 99 and 100 about their respective posts 101 and 105 in accordance with the peripheral configurations of the selected cams.

An operator-influenced mechanism has been provided with the present machine for shifting each of the cam followers 99 and 100 up and down along its associated posts 101 and 105, which mechanism includes a pair of cam-selector knobs 150 and 151 of which the knob 150 is made fast to the forward end portion of the cross shaft 143, while the rear end portion of the shaft 143 is slidably mounted within a cylindrical sleeve 152 which is supported within the rear wall portion of the bracket-arm 8. An intermediate portion of the shaft is slidingly supported within an upright bearing member 64 carried by the bracket-arm 8. Adjacent the rear portion of the shaft 143 is adjustably mounted by means of a screw 154 the cam selector 142 in a manner such that whenever the cam-selector knob 150 is shifted inwardly it will disengage the blade 139 of the cam-selector arm from a respective one of the post slots 144 so that the selector knob may be rotated and thereby either elevate or depress the cam follower 100 so that the cam follower may be made to engage a different cam. In this latter connection, it is to be understood that through a rearward movement the cam-selector arm 142 will engage an extended portion 156 of the cam follower 100 for the purpose of rotating the follower about the post 105 in a clockwise direction as viewed in Fig. 7 so as to withdraw the cam follower from engagement with the cams and against the biasing action of the spring 130 so that upon a downward shifting movement of the cam-selector arm 142, the tracking element 110 of the arm 100 will not be caught against the peripheral portion of any one of the cams. Whenever the cam follower 100 is placed in a new position, it is to be understood that a forward movement of the knob 150 will be effective to draw the cam-selector arm 142 forwardly and into engagement with a respective one of the slots 144 of the post 105.

The rearward cam-selector knob 151 is formed as an integral portion of a boss 156 which is slidingly and rotatably mounted upon the cross shaft 143 and which carries the cam-selector arm 141 through the medium of a plurality of screws 157, 157. The cam-selector arm 141 has an auxiliary arm member 158 which cooperates with a projecting arm portion 159 of the cam follower 140 so that whenever the cam-selector knob 151 is drawn toward the operator, the auxiliary arm 158 will engage the portion 159 of the cam follower for the purpose of turning the same in a counterclockwise direction as viewed in Fig. 7 for the purpose of withdrawing the tracking member 109 from engagement with the cams and against the action of the spring 130 in a manner as was hereinabove described in connection with the rearward cam follower 100. It will be understood that the rear cam-selector knob 151 functions in the same manner as the forward knob 150 in that the turning movement of the former will be effective to raise and lower the forward cam follower 99 in the same manner as is effected in connection with the rear cam follower 100.

Referring particularly to Fig. 14, the forward end portion of the cross shaft 143 is provided with a coil spring 160, the opposite ends of which are biased against the internal portions of the cam-selector knobs 150 and 151

so as to bias these two knobs in opposite directions. Referring particularly to Figs. 7 and 14, it will be appreciated that the forward movement of the shaft 143 and its knob 150 under the influence of the coil spring 160, will be arrested due to the fact that the rear cam-selector arm 142 will, through the medium of its blade 139, engage the rear upstanding post 105. The rearward movement of the knob 151 under the influence of the spring 160 will be arrested by means of a stop member 161 which is carried upon a post 162 threaded within the forward wall portion 163 of the bracket-arm 8.

Referring particularly to Figs. 1, 3, 7, 14 and 47, the rearward cam-selector knob 151 is provided with a pointer 165 which cooperates with an indicia plate 166 carried upon the forward face of the bracket-arm 8 by means of screws 167—167 to afford the operator a visual indication as to the position of the rear cam follower 100. Likewise, the forward cam-selector knob 150 carries an indicator 168 which passes a slot 169 formed in the rear knob 151 so as to cooperate with the indicia plate 166 to provide a visual indication as to the position of the cam follower 99. As is illustrated in Figs. 1 and 47, the arm 168 is adapted to point toward one of a plurality of indicia letters generally designated by the numeral 170, each of which letters corresponds to a respective one of the various above mentioned cams, while the arm 165 cooperates in a similar manner with indicia letters 171 which likewise represent various cams.

As hereinabove indicated, each of the rotary cams 73 is non-concentric in the sense that it is provided at its peripheral portion with definite projections and grooves so as to provide a particular pattern of lateral needle movement. Each of the three non-rotary cams carried by the member 86, however, is concentrically arranged about the post 68 and, thus, a shifting movement of these cams about the axis of the post 68 will not be effective to shift the cam followers 99 and 100 about their respective posts 101 and 105.

Referring particularly to Figs. 1, 2, 3, 9 and 10, the non-rotary cam member 86 is provided with the above noted handle 87 which projects through an aperture 172 provided in the front wall of the bracket-arm 8 so that the operator may grasp this handle and shift the same back and forth to effect a turning movement of the member 86 about the axis of the post member 68. As may be best observed in Fig. 47, the indicia plate 166 is apertured as at 173 to allow for this handle movement while an intermediate portion of the slot 173 is provided with a keeper slot 174 into which the handle 87 will be biased by means of a spring element 175 which connects the arm 87 to the member 86. From this, it will be appreciated that the keeper slot 174 functions normally to maintain the handle 87 in an intermediate position and that the operator may shift the handle from this position by biasing it downwardly and shifting it sidewise either in a left or right hand direction.

As hereinabove mentioned, even though the shifting movement of the handle 87 will not actuate the cam followers 99 and 100, it will shift the body portion 86 of the member about the axis of post 68 and, consequently, the groove 91 in which the pitman ball 92 is located will be shifted sidewise to effect a sidewise movement of the right-hand end portion of the pitman 93 to the end that the motion-integrating plate 112 will be shifted laterally relative to the cam followers 99 and 100. Thus, the actions of the cam followers 99 and 100 will be integrated in a different manner to the end that the pattern of lateral needle-bar motion will be varied as the handle 87 is successively shifted back and forth. In this connection, it is to be understood that as the cam followers 99 and 100 pivot back and forth about their respective posts 101 and 105 in conformance with the rotary motions of the stacked cams 73, the motion integrating plate 112 will absorb these cam-follower motions by pivoting about its trunnion pins 114—114 and by shifting back and forth with its pitman 93 in a path controlled by the groove 91 and the pitman gate 124. Thus, by this action the member 112 will integrate the cam-follower motions and transmit the same to the gate 124 which in turn will transmit the motions to the needle-bar 10 in a manner as will hereinafter be described in more detail. Quite obviously, the cam followers 99 and 100 may be placed in engagement with a single one of the various cams or in the alternative the operator may place the followers in contact with different cams thereby to effect various combinations of movements.

Although the present invention contemplates the usage of different combinations of cams, the form of the invention illustrated in the present drawings is so constructed that the rear cam follower 100 may be shifted into engagement with any one of the cams 73 and 86 which in Fig. 9 are labeled individually by the letters A to J inclusive, and by the word "Special." The forward cam follower 99, however, is adapted to engage only those cams which bear the letters C to J inclusive as well as the "Special" cam. In this connection, it is to be understood that the letters K to R inclusive as noted on the indicia plate 166 correspond respectively to the cams C to J inclusive, so that for example, when the pointers 165 and 168 are respectively set adjacent the letters K and C the cam followers 109 and 110 will each engage the same cam. These letters have been placed on the indicia plate to assist the operator in selecting various ornamental stitch patterns which, as is shown in Fig. 45, are illustrated on an instruction plate generally designed by the numeral 180, which plate may be secured to the inside portion of the machine cover-plate 58. From this instruction plate the operator by manipulating the cam-selector knobs 150 and 151 in accordance with the instructions of the plate 180 will be able to effect various patterns of ornamental stitching of the type shown on the instruction plate. Quite obviously, however, the patterns illustrated on this plate are merely a few of those which it is possible to produce with a machine of this type. The instruction plate 180 does not give any information as regards the use of the so-called "Special" cam and, as hereinabove pointed out, various special cams may be substituted to provide patterns in accordance with the requirements of various types of work.

This instruction plate 180 with its associated mechanism is disclosed and claimed in my copending U. S. continuation-in-part patent application Serial No. 591,718, filed June 15, 1956, now Patent No. 2,848,963.

From the above, it is to be appreciated that the manually controlled lever 87 which actuates the lower three cams A, B and C, as well as the guide groove 91 for the pitman ball 92, has two functions of which the first is to provide conveniently controllable means for determining a neutral position of non-vibration of the needle at the center or at either side of the field of lateral throw of the needle, whereby the needle may be caused to perform straight stitching along a center line through the field or along a line disposed entirely at either of the two sides of the field. Also by the use of this means as well as the various cams, the needle can be caused to vibrate laterally from zero to maximum either across a center line through the field or entirely from either of the two sides of the field.

Fig. 11, diagrammatically illustrates the number 3 (see Fig. 47) or central position of the arm 87 which with the A and K settings of the knobs 150 and 151 produces straight stitching along a line 43 running centrally through the field of lateral needle vibration.

Fig. 12 illustrates the number 5 or right-hand position of the arm 87 which with the A and K settings of the knobs 150 and 151 produces straight stitching along a line disposed at the right hand side of the field of needle vibration. In Fig. 12, although the top portion of the needle-bar 10 is shown at a distance T to the left of the center line 43, the bottom of the needle-bar along with the needle

50 is disposed at the right hand side of the line 43 in a manner as will hereinafter be described.

Fig. 13 illustrates the number 1 or left-hand position of the arm 87 which with the A and K settings of the knobs 150 and 151 produces straight stitching along a line disposed at the left-hand side of the field of needle vibration. In Fig. 13, although the top portion of the needle-bar 10 is shown at a distance T to the right of the center line 43, the bottom of the needle-bar along with the needle 50 is disposed at the left-hand side of the line 43 as will be hereinafter explained.

Furthermore, the manually shiftable lever 87 has a second function in that with certain settings of the cam followers 99 and 100 the shifting of the handle 87 will alter the amplitude or bight of the lateral needle vibration. In this latter connection, reference may be had to Figs. 48, 49 and 50 which diagrammatically illustrate the type of zigzag stitches it is possible to effect with the present mechanism. Referring specifically to Fig. 48, this work may be performed with the cam follower 100 disposed against the concentric cam A while the forward cam follower 99 is disposed against the cam D which corresponds to the indicia plate letter L. With the cam follower so located and the hand lever 87 positioned in its far right-hand location which is designated on the indicia plate 166 by the numeral 5, the needle will be caused to vibrate back and forth centrally across the maximum field of vibration laterally of the direction of work feed as is indicated by the upper portion of the Figure 48. However, as the handle 87 is progressively moved in a left-hand direction, the amplitude or bight of needle vibration will be decreased so that, for example, when the lever 87 gets to its mean position, designated by the numeral 3 on the indicia plate 166, only one-half of the available needle vibration will be performed, while with the hand lever 87 shifted to the extreme left-hand position as indicated by the numeral 1, straight line stitching will be performed entirely at the left-hand portion of the field of vibration.

Likewise, as illustrated in Fig. 49, when the rear follower 100 is placed in engagement with the cam B and the follower 99 is in engagement with the cam D corresponding to the indicia plate letter L, the needle will again vibrate through its full amplitude while the hand lever 87 is in its extreme right-hand position. But as the handle is moved toward the left, it will decrease the amplitude of needle vibration in a manner which is symmetrical about the center 43 of the field of vibration.

Fig. 50 illustrates the type of pattern which is obtained whenever the rear follower is placed in engagement with cam C and the front follower in engagement with cam D corresponding to the indicia plate letter L and the lever 87 is positioned to the extreme right, in which case the needle will vibrate through its greatest amplitude and as the hand lever 87 is shifted to the left the needle bight will be reduced from a left-hand direction so that ultimately the needle will perform straight line stitching at the extreme right-hand portion of the needle vibration field.

In the present mechanism, as may be best observed in Fig. 7, the longitudinal axes of the forward pitman pivot pin 123, the motion-integrating plate trunnion pins 114 and the cam-supporting post 68 are all aligned along a straight line designated by the numeral 181—181. With the longitudinal axes of these three points so arranged and with the cam followers 99 and 100 each disposed in engagement with the cam B, the motion-integrating plate 112 would be found to have its rear face 137 disposed at a right angle to the central line 181—181 and, thus, this would represent a null position of the entire mechanism. However, as pointed out hereinabove, the forward cam follower 99 in the present embodiment of the invention is not adapted to be shifted into engagement with the cam B for it is not found that this is necessary in order to perform the required stitch patterns.

From the above, it is to be understood that the cams 73 represent intelligence record-carrying means which include a plurality of cams each representing a different response-producing record, while the cam followers 99 and 100 each represents intelligence pick-up means for simultaneously sensing and responding to a plurality of records of the record-carrying means in reaction to the relative movements between these pick-up means 99 and 100 and the record-carrying means represented by the cams 73. Also, the shaft 13, together with its meshing gears 65 and 66, and the connections between the shaft 13 and the needle-bar 10 represent means for producing such relative movements in synchronism with the needle reciprocating movements. It also follows that the plate 112 represents means associated with the pick-up means 99 and 100 for integrating a plurality of record responses, while the pitman 93 with its associated mechanism represents a transmission mechanism for shifting the needle sidewise in conformance with the integrated record response. It will be understood by those skilled in the art that various changes in this mechanism could be made and that such changes would all come within the purview of applicant's broad invention.

Needle-bar mechanism

As hereinabove noted, the hollow head portion 9 of the present sewing machine is provided with an upright needle-bar 10 which is adapted to be reciprocated endwise of itself, as well as to be laterally shifted in a direction substantially at right angles to the direction of work feed. Referring particularly to Figs. 4, 5, 6, 18 and 19, the needle-bar 10 is normally disposed with its longitudinal axis forming an angle of about eleven degrees with the vertical so that the eye-pointed needle 50 will be presented toward the operator thereby to improve the visibility of the operator in the stitching area. More specifically, the lower portion of the needle-bar 10 is slidingly mounted within a bore 185 of a bearing element, the upper portion 186 of which is formed substantially in the shape of a ball or sphere while the lower portion 187 is formed as a right cylinder. In order to form a seat for the ball 186, the frame portion 188 of the head 9 is provided with a bore 189 in which is slidingly mounted two spherical socket seats 190 and 191 in which the spherical bearing 186 is mated in a manner as is best disclosed in Figs. 6 and 18. A firm seat is provided for the bearing 186 by urging the spherical seat portions 190 and 191 together by means of a sleeve 192 which is threaded within the bore 189 of the frame 188. Whenever the sleeve 192 is properly seated it may be locked in position by means of a set screw 193. It is to be particularly noted that the right cylindrical portion 187 of the needle-bar bearing does not engage the sleeve 192 and, thus, the bearing 186 may be rocked back and forth in the manner of a universal joint within the bearing seats 190 and 191. Also, the needle-bar 10 may be reciprocated vertically within the spherical bearing 186.

The upper portion of the needle-bar 10 is slidingly mounted within a second bearing which comprises an upper portion in the form of a ball or sphere 194 having a lower portion shaped as a right circular cylinder 195. The spherical bearing 194 is received within a bore 196 provided within the gate 124 which, as hereinabove mentioned, is pivotally mounted upon an upright cylindrical member 127. The spherical bearing 194 rests upon a spherical seat or socket 197 formed in the lower portion of the bore 196, and the bearing 194 is maintained against this seat by a sleeve member 198 having its lower internal portion formed with a spherical surface as at 199. The sleeve 198 is maintained in intimate contact with the bearing 194 by a threaded cap 200 which is seated within the gate 124 and against the sleeve 198. The threaded cap 200 is apertured as at 201 to permit the needle-bar 10 to shift laterally relative

to the gate 124 in the manner of a universal joint. As is best disclosed in Fig. 6, the sleeve 198 may be locked in position by means of a set screw 202.

Referring particularly to Figs. 2, 4, 5 and 6, the forward portion of the main shaft 13 is provided with a conventional crank mechanism for reciprocating the needle-bar 10 endwise of its length. More specifically, the end portion of the shaft 13 is provided with a crank 203 having projecting therefrom a crank pin 204 to the end portion of which is pivotally secured a link 205 of which the lower portion is provided with a bore 206 for slidably receiving therein a cylindrical pin 207 whose one end portion is provided with a pair of laterally spaced cheeks 208—208. As may be best seen from Fig. 18, the cheeks 208—208 are provided with a pair of aligned apertures 209—209 for receiving therein a sleeve 210 which is provided with a central bore 211 for receiving the needle-bar 10. The sleeve 210 is locked in place upon the needle-bar by means of a set screw 212 and from this it is manifest that the sleeve 210 is formed substantially as an integral part of the needle-bar 10 and can rotate within the cheek apertures 209—209.

Thus, rotation of the main shaft 13 will, through the medium of the rotary crank 203 and its associated mechanism, function to reciprocate the needle-bar 10 back and forth lengthwise of its longitudinal axis and within its upper and lower bearings 194 and 186.

As hereinabove described, the needle-bar 10 is adapted to be shifted laterally of the direction of work feed by means of a plurality of rotary cams and a pitman member 93, of which the latter is pivotally connected to the needle-bar supporting crank or gate 124 by means of a vertical pin 123. From this it is to be understood that the endwise movements of the pitman 93 will effect an oscillation of the needle-bar gate 124 to the end that the upper portion of the needle-bar will be swung through an arc whose center coincides with the axis of the pivot member 127 about which the gate 124 oscillates. This needle-bar action is diagrammatically illustrated in Fig. 19, wherein the axis of oscillation of the gate 124 is represented by the line 215. The dotted arc 216 represents the path of movement taken by the axis of the pin 123 while the arc 217 represents the path of movement traversed by the upper cylindrical bearing 194 of the needle-bar 10. By the same token, the pitman 93 is diagrammatically illustrated as are also the cam followers 99 and 100, the needle bight and field selector member 84 and its associated handle 87.

Still referring to Fig. 19, it is to be understood that with the upper spherical bearing 194 of the needle-bar 10 shifting about a path designated by the arc 217 and with the lower spherical bearing 186 being bodily fixed in the lower frame portion 188, the needle 50 will be swung substantially through a path corresponding to an arc 218 which is designed to correspond substantially with the arc of movement of a loop-seizing hook 219 carried by a rotary loop-taker 220 mounted upon a substantially upright shaft 221. This rotary loop-taker is illustrated in more detail in Fig. 5 and it is to be particularly observed that the needle 50 is arranged to descend inside of the circular path of movement of a loop-seizing hook 219 at a location rearwardly of the loop-taker body with reference to the direction of normal work feed which is from right to left as viewed in Fig. 5. From this, it is manifest that within certain optimum limitations the needle will properly cooperate with the loop-seizing hook 219 no matter whether the needle is given endwise reciprocations or a combination of reciprocating movements and lateral sidewise movements since the needle 50 in its lateral movements follows a path 218 which substantially coincides with the circular path of movement of the loop-seizing hook 219.

Referring particularly to Fig. 20, there is illustrated a top plan view of the rotary loop-taker 220, and cooperating with this rotary loop-taker is a needle 50 which is shown in three different positions such as its central or normal position 222, its extreme left-hand position 223, and its extreme right-hand position 224, and in each one of these positions it will properly cooperate with the loop-seizing hook beak 219 in the formation of stitches due to the fact that the needle 50 is shifted along the path as represented substantially by the arc 218.

Thus, the gate 124 has one end pivotally mounted about a fixed axis and its other end pivotally connected by a ball joint structure with the upper end of the needle-bar 10. Means are provided for oscillating the gate about its axis thereby to swing the upper end of the needle-bar through an arc of a circle, as represented in Fig. 19 by the number 217. Also means are provided in the form of a second ball joint structure slidably associated with an intermediate portion of the needle-bar and carried by the frame for constraining the lower end of the needle-bar to swing through an arc of a circle, as represented in Fig. 19 by the number 218, which is eccentric to the other circle when such circles are projected upon the work-supporting surface 1.

This needle-bar structure is described and claimed in my copending divisional U. S. patent application Serial No. 634,719, filed January 17, 1957.

Presser-bar mechanism

The presser-bar mechanism incorporated in the present machine is located within the hollow portion of the head 9 and is supported in a pair of substantially opposed upper and lower cylindrical bores 230 and 231 formed respectively in portions 232 and 188 of the bracket-arm frame 8 (see Fig. 18). Referring particularly to Figs. 5 and 18, there is positioned within the lower bore 231 a hollow plunger sleeve 233 secured within the bore by means of a set screw 234. Slidingly mounted within the bore 235 of the sleeve 233 is a presser-bar 11 having at its lower portion, as hereinabove noted, a conventional type of presser-foot 51, and being provided within its upper portion with a hollow bore 236 within which is disposed a coil spring 237. Slidingly received within the presser-bar bore 236 is a plunger 238 of which the lower end portion is adapted to engage the spring 237, while its upper portion is formed with a cup-shaped member 239 provided in its upper surface with an annular groove 240.

As may be particularly observed from Fig. 18, the upper bore 230 is laterally offset from the lower bore 231 and it is provided with a cylindrical member 127 which is secured within the bore 230 by means of a set screw 241, which together with a shoulder portion 242 maintains the cylindrical member 127 in a fixed position at all times relative to the machine frame.

As hereinabove noted, the depending cylindrical member 127 functions as a pivot support for the needle-bar gate 124 which is maintained in position upon the member 127 by means of the aforesaid collar 128 and its associated set screw 129.

The depending member 127 is provided in its lower portion with an internal cylindrical bore 243 in which is slidingly mounted a second plunger 244 whose lower rounded end portion 245 is adapted to be received within the groove 240 of the plunger cap 239. The upper portion of the bore 243 communicates directly with a threaded bore 246 which is adapted to receive the threaded end 247 of a manually adjustable screw 248 whose lower end is adapted to engage the second plunger 244 for the purpose of shifting the same lengthwise of its axis thereby to compress the spring 237 through the medium of the first plunger 238 to the end that the spring 237 will bias the presser-bar 11 with its associated presser-foot 51 downwardly toward the sewing machine work-support 1.

Referring particularly to Fig. 5, the longitudinal axes of the upper plunger 244 and the presser-bar 11 are

disposed in parallelism with each other and with the needle-bar 10 and that, as hereinabove noted, the longitudinal axis of the needle-bar 10 forms substantially an eleven degree angle with the vertical to the end that the presser-bar and needle-bar are inclined relative to the work-supporting surface 1 in a manner such that the operator is afforded an unobstructed view of the needle 90 and the presser-foot 91.

With the presser-bar 11 offset forwardly from its upper spring-biasing plunger 244 a construction is provided which permits the needle-bar 10 to have an optimum turning radius about the axis of the plunger 244 and at the same time permits the needle and presser-bars 10 and 11 to be properly spaced to the end that the presser-foot 91 and the needle 90 are disposed in a proper side-by-side relation. The cooperating upper and lower presser-bar plungers 244 and 236 permit this offset construction due to the fact that they are interconnected by means of a plunger cup 239.

Still referring to Fig. 5, the upper portion of the presser-bar 11 has clamped thereto by means of a screw 249 an abutment member 250 against which a presser-bar lifter cam 251 is adapted to be shifted by a manual movement for the purpose of lifting the presser-foot 91 off the work support 1 so as to facilitate the insertion and removal of a work-piece. The presser-bar lifting cam 251 is formed as an integral part of a presser-bar lifting lever 252 which is pivoted to the machine frame in a conventional manner by a screw 253 threaded directly within the frame.

This presser-bar structure is disclosed and claimed in my copending divisional U. S. patent application Serial No. 634,755, filed January 17, 1957.

Rotary loop-taker mechanism

As hereinabove noted, the present machine is provided beneath the work support 1 with a rotary shaft 18 which is driven from the upper rotary shaft 13 through the medium of an upright shaft 23 and its associated gears including the lower meshing gears 24 and 25. The rotary shaft 18 is mounted in bearings 19 and 20 and its left-hand portion as viewed in Fig. 21 is provided with a spiral bevel gear 255 which meshes with a similar gear 256 (see Figs. 5 and 28) and is secured by means of a set screw 257 to the lower end portion of a vertically disposed hook shaft 258. The vertical shaft 258 is rotatably journaled within a bearing bushing 259 which in turn is mounted by means of a set screw 260 within a cylindrical bore 261 provided in a rotary hook support 262 which forms a part of the machine frame. The upper portion of the bearing bushing 259 is provided with a shoulder 263 which is adapted to support an annular loop-taker ring 264 which is integrally formed with the hook shaft 258. More specifically, the lower portion of the annular loop-taker ring is provided with a seat 265 which engages the top portion 263 of the bushing 259.

The rotation of the shaft 18 will, through the medium of the gears 255 and 256, rotate the vertical loop-taker shaft 258 and the gears 21, 22, 24, 25, 255 and 256 are so designed that the lower shaft 18 will rotate at twice the speed of the upper shaft 13 thereby to provide the usual two rotations of the rotary loop-taker for the one complete reciprocatory cycle of the needle 90.

Thus, it is to be understood that the rotary loop-taker mechanism is located beneath the work-supporting plate or surface 1 and entirely within the enclosed sewing machine base formed by the depending walls 2—2, 3—3 and the lower removable cover plate 4.

Referring particularly to Figs. 1 and 27, the work-supporting surface 1 is provided above the rotary loop-taker with an opening generally designated by the numeral 266, which opening is defined by a recessed ledge 267 which supports the conventional type of slide-plate 268 which may be shifted back and forth so as to cover the loop-taker in a manner as is disclosed in Fig. 1 or to give access to the loop-taker in a manner as is disclosed in Fig. 27. The rear portion of the opening 266 beneath the presser-foot 91 is adapted to be covered by means of a throat-plate 92 which, as is shown in Fig. 29, is provided with a needle aperture 270 and apertures 271, 272 and 273 which receive a feed-dog 33.

As is best illustrated in Figs. 5 and 27, the feed-dog 33 is carried by a feed-bar 34 and extends over the loop-taker ring 264. From this, it is to be understood that the rotary loop-taker mechanism is disposed substantially in front of the feeding mechanism as well as in front of the reciprocatory needle 90 so that the operator may have access to the loop-taker mechanism.

Referring particularly to Figs. 33 to 38, inclusive, the present loop-taker comprises an annular loop-taker ring 264 provided with an interior circular wall 275 formed concentrically with the vertical axis of loop-taker rotation which, of course, coincides with the longitudinal axis of the loop-taker shaft 258. As is particularly illustrated in Fig. 35, the ring 264 is provided with a gap 276 in the form of a scarf-like narrow channel which cuts through the interior wall 275. The annular loop-taker ring 264 is also provided with an interior circular rib 277 disposed adjacent and extending inwardly from the interior wall 275 with the rib having a gap therein coinciding with the interior wall gap 276 to provide at one end and as a part of such rib a loop-seizing beak 219 which is disposed closer to the center of the ring than and in substantial overlapping relation with the other end portion 279 of the rib. From this, it is to be understood that the gap 276 forms a scarf-like narrow channel which cuts through the interior wall 275 and the rib 277 to form two bias-cut overlapping end portions of the ring and an internal loop-seizing beak 219 at one end of the rib 277.

Referring particularly to Fig. 35, the interior rib 277 extends about the interior portion of the ring 264 for substantially 360° and the end portion 279 of the rib 277 opposite to the loop-seizing beak 219 is, throughout an angle represented by the letter W and equivalent to substantially 30°, formed with its interior peripheral surface spaced a greater distance from the ring center than the remaining portion of the rib thereby to form needle-thread loop clearance. In other words, the radius of the internal rib 277 is substantially constant throughout its major portion and the radius is indicated by the letter X, while during the last 30° of the ring as represented by the angle W the radius becomes increasingly greater until the inner peripheral portion of the rib substantially vanishes at a location 279 adjacent the loop-seizing beak 219. Since, as is illustrated in Fig. 20, the eye-pointed needle 90 reciprocates within the confines of the loop-taker ring 264 so as to have its loop seized by the beak 219, the tail portion of the rib 277 is given clearance so that the needle may throw out its thread loop as the needle is withdrawn upwardly through the work in a conventional manner.

Still referring to Fig. 35, the rib 277 is provided on its upper surface with an indentation 280 which is located directly adjacent the needle as the latter descends within the confines of the loop-taker ring 264, and this indentation 280 functions to deflect the needle inwardly in the event that the needle would otherwise strike the peripheral portion of the rib 277. Actually this indentation is located substantially 146 degrees in a counter-clockwise direction from the hook beak 219, which angle in Fig. 35 is represented by the letter Y. From the above, it is to be understood that the rotary loop-taker comprises a substantially cup-shaped member having an annular ring 264 which is formed integrally with a vertically disposed shaft 258 and which is secured to such shaft by means of a bottom web designated by the numeral 281.

As is best illustrated in Figs. 35, 36 and 37, the gap or

scarf-like channel 276 extends downwardly through the ring 264 so that the loop-seizing beak 219 may properly grasp the needle-thread loop. In order to provide a proper throat in the lower portion of the channel 276 the ring 264 is provided with an aperture 282 which is formed by drilling through the ring from the outside so that the inner portion of the aperture 282 will communicate with the interior of the channel 276 in a manner as is best disclosed in Figs. 35 and 36. This aperture is so employed because of the difficulties in forming such a channel throat by conventional machining methods.

Cooperating with the rotary loop-taker is a thread-case generally designated by the numeral 283 which is provided in the usual manner with an aperture 284 for receiving therein a thread-carrying bobbin 285; the lower portion of which is maintained within the thread-case aperture 284 by means of an inwardly extending annular thread-case shoulder 286.

Adjacent the bobbin-receiving aperture 284 the thread-case is provided with an indentation 287 which permits the operator readily to remove the bobbin 285 with the fingers. The thread-case 283 is formed with a peripheral rib 288 formed as an arc of less than 180° about a radius substantially equal to that of the interior wall 275 of the ring 264. As best disclosed in Figs. 33 and 34, the thread-case 283 is disposed within the eccentrically of the ring 264 with its rib 288 being vertically supported upon the upper side of the ring rib 277 and in sliding peripheral engagement with the interior circular wall 275 of the ring. Still referring to Figs. 33 and 34, the thread-case has a second peripheral rib 289 vertically spaced below the first rib 288 and disposed in sliding engagement with the under side of the ring rib 277 thereby to assist in maintaining the thread-case in its proper relation within the ring 264.

The wall 290 of the thread-case above the peripheral rib 288 is formed with a downwardly inclined thread slit 291 terminating in an enlargement 292 (see Fig. 34), the slit 291 being covered by a conventional type of tension spring 293 secured to the wall 290 by a fastening screw 294 and an adjusting screw 295 in a conventional manner. The tail portion 296 of the tension spring projects into an aperture 297 formed in the wall 290. The thread-case is threaded by drawing the thread from the bobbin upon the top of the side wall of the case through the slit 291 and under the tension spring 293 from beneath which it issues through the notch 298 in the upper edge of the bobbin cavity wall.

Referring to Figs. 28 and 33, the present rotary loop-taker has cooperating with it an inverted U-shaped member 299 disposed in straddling relation with the loop-taker ring 264 with one limb of the member disposed outside of the ring and supported beneath the ring on a base portion 300 which projects into a bore 301 formed within the loop-taker support 262. A set screw 302 secures the base portion 300 within the bore 301. The other limb of the member 299 is disposed within the confines of the ring and adjacent the thread-case and provides a substantially horizontally disposed thread-supporting bar 303 from which projects upwardly an abutment member 304 which functions to engage a portion 305 of the thread-case thereby to prevent the thread-case from shifting in a clockwise direction as viewed in Fig. 33.

As is best illustrated in Figs 33, 34, 36 and 38, the loop-taking mechanism is provided with a second means for restraining the thread-case and this second means prevents the thread-case from turning in a counterclockwise direction in synchronism with the loop-taker as viewed in Fig. 33. This second thread-case restraining means comprises a platform member 306 which is bent downwardly as at 307 to provide an arm 308 which is slidably received within a channel 309 formed in the frame portion 310 of the sewing machine base. The platform member 306 is supported in a substantial horizontal position by means of a leaf spring whose upper limb 311 bears downwardly upon the member 308 of the platform, while an under limb 312 is secured by means of a screw 313 to the under portion of the frame 310. In order to prevent the spring member from shifting, its one end portion 314 is confined within an aperture 315 formed in the under side of the frame portion 310.

The platform member 306 is normally locked in the position as illustrated by solid lines in Fig. 34 by means of a vertically disposed pin 316 mounted within a bore 317 formed in the frame portion 310. The upper end portion 319 of the pin 316 is adapted to be received within a notch 319' formed within the platform arm 308 thereby to lock the arm and platform member in position.

As is best disclosed in Fig. 38, the vertical pin 316 is secured within the frame bore 317 by means of a set screw 318 and the upper portion 319 of the pin 316 is formed eccentrically of its body portion so that by turning the pin 316 within the bore 317 the arm 308 of the platform member 306 may be effectively adjusted back and forth from left to right as viewed in Fig. 33.

Mounted upon the platform member 306 by means of screws 320, 320 is an abutment member 321 which is formed with a substantially vertically disposed arm 322, the free end portion of which is adapted to engage the flange portion 323 of the thread-case thereby to prevent the latter from turning in synchronism with the rotary loop-taker ring as the same rotates in a counterclockwise direction as viewed in Fig. 33. As may be seen in Fig. 38, the arm 322 of the abutment member is formed at its front portion with a downwardly depending lobe 324 which partakes of the thread-handling functions in a manner as will hereinafter be described.

The abutment member 322 is provided with an upwardly inclined finger piece 325 which permits an operator to grasp the abutment member and lift the same along with the platform 306 so that the latter will clear the upstanding locking pin 319 to the end that the operator may then shift the entire assembly in a right-hand direction as viewed in Fig. 33, thereby to remove the abutment member from the vicinity of the thread-case so that the entire thread-case may be removed from the loop-taker ring 264. In Fig. 34, the dotted lines represent the position assumed by the abutment member 321 when it is in its so-called retracted position.

From the above, it is to be understood that the operator may readily pull back the slide-plate 268 to gain access to the entire upper portion of the loop-taking mechanism and with the slide-plate in this retracted position, as is illustrated in Fig. 27, the bobbin 285 may be readily removed and replaced with a fresh bobbin and, furthermore, the abutment member 321 may be shifted from its operable position to a retracted position thereby to permit the threadcase 283 to be readily removed from the hook ring. Naturally, the removal of the thread-case 283 is greatly facilitated due to the fact that the present loop-taking mechanism is located entirely at the front of the inclined needle 50 and, thus, there are no obstructions to hinder the removal of the thread-case or the inspection of the entire loop-taking mechanism.

This loop-taking mechanism is disclosed and claimed in my copending divisional U. S. patent application Serial No. 634,904, filed January 18, 1957.

Throat-plate

Referring to Figs. 29 to 32, inclusive, the throat-plate 52 is provided with a laterally elongated needle-receiving aperture 270 which is elongated so as to receive a laterally vibrating needle. Fig. 32 illustrates a similar throat-plate 326 provided with a circular aperture 327 which is adapted to receive a needle which is restrained from shifting laterally of the direction of work-feed so that straight stitching may be performed. In all other respects these two throat-plates 52 and 326 are similar.

Referring particularly to Figs. 30 and 32, the under surface 328 of the throat-plates 52 and 326 are milled

away as at 329 so as to provide a bobbin-thread-retaining means in the form of an abutment shoulder 330 for maintaining a work limb of the bobbin thread at the extreme left-hand side of the needle aperture as viewed in Fig. 29 to the end that a proper stitch formation will be effected. It is to be understood that the thread-retaining abutment shoulder 330 is formed upon the under surface of the throat-plate adjacent the needle aperture and it extends crosswise of the feed-dog receiving slots 271 and 273. The described location of the thread-retaining abutment shoulder functions to maintain the bobbin-thread at the left-hand side of the needle aperture thereby to insure that whenever two needles are simultaneously employed they will uniformly descend at the same side of the interlocking bobbin thread thereby to insure that no hitch stitches will be formed during the forward feeding of the work. Even when a single needle is employed the retaining shoulder 330 will tend to maintain the bobbin thread at the left-hand side of the needle aperture in a manner as is shown in Figs. 41 to 45 inclusive.

This throat-plate structure is disclosed and claimed in my copending divisional U. S. patent application Serial No. 627,878, filed December 12, 1956.

Stitch formation

Figs. 41 to 45, inclusive, illustrate the formation of zigzag lock-stitches on a machine of the present character when employing a single needle. Referring particularly to Fig. 41, there is disclosed a fragmentary portion of a throat-plate 52 which supports work-pieces 331 in which zigzag stitches 332 are being formed. The loop-taker ring 264 is adapted to rotate in a counterclockwise direction, and as viewed in Fig. 41, the hook beak 219 has just seized the loop of the needle thread 333 and has commenced to carry the thread in a counterclockwise direction so as to concatenate it with the limb of the bobbin-thread 334 which leads from the bobbin 285 to the work-piece 331.

Fig. 43 illustrates the loop-taking mechanism with the loop-seizing beak 219 advanced from the position shown in Fig. 41 to a location where the needle-thread loop 333 just begins to be drawn over the bobbin-thread limb 334. In this figure, it is to be particularly observed that that portion of the needle loop which lies beneath the thread-carrier 283 is maintained upon the upper surface 303 of the thread-supporting bar of the inverted U-shaped member 299 to the end that this limb of the thread will be prevented from dropping below the thread-carrier restraining member 304 and thus becoming fouled thereunder.

Referring now to Fig. 44, it is to be seen that the loop-seizing beak 219 has passed through 180° from its loop-seizing position and that the upper limb of the needle thread 333 extends from the loop-seizing beak 219 in a left-hand direction to be retained between the forward inclined wall 336 of the depending lobe 324 of the thread-case abutment member 322 (see Fig. 38) and the flange 323 of the thread-case for the purpose of controlling the needle-thread loop so that the latter will not loop over the thread-case 303. It is to be particularly understood that the lobe 324 and the thread-case flange 323 will maintain control over the needle thread 333 until the take-up arm 56 commences to draw up the needle thread as the needle is withdrawn from the work. As soon as the take-up arm 56 commences to raise in the usual fashion it will draw the needle thread 333 upwardly through the needle and as a consequence the thread will be drawn off the loop-seizing beak 219 and from between the lobe 324 and the thread-case flange 323 until it assumes the position as illustrated in Fig. 45 wherein the needle-thread loop is illustrated as being controlled by a finger 335 which is formed upon the thread-case.

In Fig. 45, it is to be particularly observed that the needle-thread loop 333 is fully concatenated about the bobbin thread 334 and at the same time it extends about the controlling finger 335 so that the loop will have little or no tendency to loop about with the possibility of becoming fouled.

From the above, it is to be appreciated that the inverted U-shaped member 299 has two functions of which the first is to prevent the thread case from turning in a clockwise direction as viewed in Fig. 45, while the second function is to control the under thread portion of the needle thread in a manner as is disclosed in Fig. 43 wherein the under limb of the thread 333 is supported upon the member 303. By the same token, it is to be understood that the thread-case restraining arm 322 has a double function, of which the first is to prevent the thread-case from revolving in a counterclockwise direction as viewed in Fig. 41, while its second function concerns its depending lobe 324 which has an inclined surface 336 which cooperates with the flange 323 of the thread-case in maintaining control over the needle thread prior to the time that the take-up arm 56 withdraws such thread from the vicinity of the hook.

Throat-plate lifting mechanism

Fig. 1 illustrates the normal position taken by a throat plate 52 which, as hereinabove described, is disposed within the bed opening 266 and upon the inwardly directed opening ledge 267. As illustrated in Fig. 29, the throat plate 52 is provided at either side thereof with a slight indentation 52'—52' each of which is adapted to be received within a slot 337 formed within a respective one of a pair of plungers 338 and 339 which normally function to maintain the throat plate 52 in its operative position as is best illustrated in Figs. 1 and 22.

Each of the plungers 338 and 339 is slidingly mounted in a respective one of a pair of cylindrical bores 340 and 341 formed within depending members 342 and 343 of the work-support 1. The lower portion of each of the plungers 338 and 339 is provided with a collar 344 against which one end of a coil spring 345 is adapted to be biased. The upper end of the spring 345 which surrounds the plunger 338 engages the upper shoulder 346 of a bore 347 while the upper end of the spring 345 surrounding the plunger 339 engages a shoulder 348 formed on the member 343. From this, it is to be understood that the springs 345, 345 function to bias the plungers 338, 339 downwardly thereby to maintain the throat plate 52 in its operative position.

The present invention contemplates the provision of means whereby the throat plate 52 may be elevated to a position above the work support 1 so as to render the feed-dog 33 ineffective due to the fact that the latter can no longer project above the surface of the throat-plate for the purpose of feeding the work. Such an elevated position of the throat-plate is particularly disclosed in Fig. 23. With the throat-plate 52 so raised above the feed-dog, the latter is rendered ineffective and thus the operator may perform various types of ornamental stitching, the execution of which requires that the work be hand fed beneath the needle and over the throat-plate. Furthermore, those skilled in the art will readily understand that most ornamental stitching of this latter type is accomplished with the use of darning hoops for stretching and maintaining the work in a taut position and that with the present throat-plate 52 raised above the normal level of the work support 1, the throat-plate will function to bias the work upwardly over the normal work-support plate level and thereby stretch the same relative to the darning hoops to the end the work will be prevented from flagging during the stitching operations.

Referring particularly to Figs. 22, 23 and 24, each of the plungers 338 and 339 is provided with a hollow bore 349 in which is slidingly mounted a plunger pin 350 which normally under the force of gravity rests upon the upper surface of a cam bar generally designated by the numeral 351. The upper surface 352 of the cam bar 351 is provided with a pair of laterally spaced raised cam surfaces generally designated by the numerals 353

and 354. Also, the under surface 355 of the cam bar is provided with a depending cam surface designated by the numeral 356. As may be observed from Figs. 21 and 22, the cam bar 351 at its left-hand portion rests upon the upper surface of a screw 410 which is threaded directly within the lower portion of the depending member 342 which is provided with a slot 357 for receiving and guiding the cam bar 351.

As may be observed from Fig. 21, an intermediate portion of the cam bar 351 is guided within a slot 358 formed within a depending frame portion 359. The extreme right-hand end portion of the cam bar 351 is bent in the shape of an upright U as at 360 and supported within the opposite limbs of the U is a shoulder screw 361, an intermediate portion of which pivotally supports a handle 362 whose lower end portion 363 is bent in the shape of an eye and surrounds the shoulder screw 361. Intermediate the length of the handle 362 is formed oppositely extending pintle members 362'—362' which are supported within the upturned end portions 364—364 of the forked end of a support arm 365 which is secured to the sewing machine bed 1 by means of a screw 366.

As may be best observed in Figs. 21 and 25, the upper portion of the handle 362 extends through the bed 1 by way of a bed aperture 367 so as to be accessible to the operator in a manner as is best disclosed in Fig. 1. From this, it will be appreciated that the member 365 acts as a pivotal support for the arm 362 to the end that the free end portion of the arm may be swung from left to right thereby to effect a left to a right reciprocatory motion of the cam bar 351.

With the handle member 362 at its extreme right-hand position as illustrated in Fig. 25, the cam bar 351 is disposed in the position as illustrated in Fig. 22 wherein the throat-plate 52 is adapted to be disposed in its lowest or normal position. However, when the handle member 362 is shifted to an intermediate position as illustrated by the dotted lines generally designated by the numeral 368, the cam bar is shifted to the right so that the lower cam surface 356 of the bar is in a position on top of the support screw 356 and the upper flat portion of the left-hand cam 353 engages the pin 350 so as to elevate the same and the right-hand inclined portion 369 of the cam 353 engages the under surface of the plunger shoulder 344 so as to elevate the entire plunger 338 thereby to maintain the throat-plate in a position as is illustrated in Fig. 23.

By the same token, the right-hand cam 354 is positioned relative to the right-hand plunger 339 so that the upper flat surface of the cam will bias the pin 350 upwardly and the right-hand inclined portion 370 of the cam 354 will bias the plunger 339 upwardly in the same manner as illustrated in Fig. 23 in connection with the plunger 338. The throat-plate is locked in this raised position by being clamped between the plungers 338, 339 and their associated plunger pins 350—350.

When it is desired to remove the throat-plate 52 from the sewing machine, the operator merely shifts the handle member 362 to the left-hand dotted line position generally designated by the numeral 371. When in this position, the cam bar 351 has its left-hand end portion located in a manner as is illustrated in Fig. 24. From this latter figure it is to be seen that the lower cam 356 is in engagement with the top portion of the screw in a manner such that the plunger 338 is raised to its highest position by the upper flat portion of the cam 353, while the plunger pin 350 is permitted to drop downwardly into a groove 372. With the pin 350 dropped to this position, as is illustrated in Fig. 24, the throat-plate 52 is released so that it may be removed from beneath the plunger 338. By the same token, the plunger 339 is also shifted to its highest position due to the fact that the lower portion 344 of the plunger is positioned upon the upper flattened surface of the right-hand cam 354, while the plunger pin 350 is permitted to drop down in engagement with the upper surface 352 of the cam bar thus releasing the right-hand end portion of the throat-plate to the end that the throat-plate may be slipped away from the plungers 338 and 339 and be completely released from the sewing machine bed. Thereafter different throat-plates may be substituted.

Referring particularly to Figs. 1, 25 and 26, there is provided an indicia plate 373 formed with an elongated slot 374, which plate is adapted to surround the throat-plate actuating-handle 362 and to be secured to the bed portion of the machine by screws 366 and 375. As is illustrated in Fig. 26, the indicia plate 373 may be appropriately marked with the words Unlock, Up and Down to designate the three corresponding positions of the throat-plate actuating mechanism.

This throat-plate lifting mechanism is disclosed and claimed in my copending divisional U. S. patent application Serial No. 627,189, filed December 10, 1956.

Needle clamp

As is shown in Figs. 51 to 56, inclusive, and Fig. 61, the needle bar 10, at its lower portion, is provided with means for removably carrying the eye-pointed needle 50 which cooperates with the rotary loop-taker in the formation of stitches. More specifically, the needle-bar comprises a right cylindrical member 10 whose lower end portion is formed with a needle-shank receiving slot generally designated by the numeral 380. As may be seen in Figs. 56 and 61, intersecting the slot 380 is a second slot 381, which breaks through one cylindrical wall portion of the needle-bar 10. The slots 380 and 381 form a needle-shank receiving seat which is formed in part at least with a pair of substantially intersecting angularly disposed flat walls 382 and 383. Surrounding the lower portion of the needle-bar 10 and the lower portions of the intersecting slots 380 and 381 is a cylindrical clamping band generally designated by the numeral 384, which band is provided with a vertical bore 385 in which is slidingly received the needle-bar 10. One portion of the clamping band 384 is formed as a projecting boss 386 provided with a threaded bore 387 in which is screwed a thumb screw 388 whose inner end portion is formed in the manner of a cone as at 389. From Fig. 55, it is to be particularly observed that the longitudinal axis of the screw 388 coincides with that of the boss 386 and is laterally offset from the longitudinal axis of the needle-bar 10.

The clamping band 384 is rigidly secured to the needle-bar 10 by means of a screw 390 which passes directly through a first aperture 391 in the band to be threaded in an aperture 392 in an opposite band wall. Also, the screw 390 passes through an aperture 393 formed directly in the needle-bar 10 so that the screw will lock the band and needle-bar together as an integral unit.

The present needle clamp is adapted to receive a sewing needle 50 of a conventional type having a shank portion formed as a slab-sided right circular cylinder with the slabbed side 394 being disposed substantially on an opposite side of the needle from the elongated groove 395 and at the same side as the short groove 396. This is a conventional type of sewing needle which must be accurately positioned relative to its associated loop-taker so as to insure the formation of proper stitches. In any sewing machine, it is essential that the point of the needle must always pass a certain fixed distance away from the loop-taker. In order to insure passage of the needle at this fixed distance from the loop-taker, the point of the sewing needle must always bear a certain fixed relation to the needle-bar. It is standard practice in the art for the shank of a sewing needle to be provided with a slabbed side 394 (see Fig. 62) which lies in a plane a fixed distance from the needle point. The same fixed distance is maintained regardless of the needle size. By placing the slabbed side 394 of the needle-shank against a flat surface 382 (see Figs. 55 and 59) on the needle-bar 10, the cor-

rect distance between the needle and the loop-taker beak 219 will always be correctly maintained.

Referring to Fig. 62, it should be noted that the cross-sectional height *h* of the needle-shank is the minimum diametral dimension of the shank while the width *d* is the maximum diametral dimension.

As is perhaps best illustrated in Figs. 55 and 56, the needle 50 is adapted to be positioned within a needle-shank receiving slot 380 at the juncture of the two angularly disposed walls 382 and 383 and with the slabbed side 394 of the shank disposed flat against the wall 382. With the needle in this position, the thumb screw 388 may be advanced into the shank-receiving slot so that the conical head 389 will engage a peripheral rounded wall of the needle thereby to force the same into the pocket formed by the angularly disposed walls 382 and 383. In this position, the longitudinal axis of the needle should correspond substantially with that of the needle-bar 10.

Referring to Fig. 56, it is to be particularly observed that the needle 50 is adapted to be inserted upwardly into the shank-receiving slot 380 until the needle engages the screw 390, which functions as an abutment stop for the needle to insure that the latter is set at the requisite height within the needle-bar 10.

Associated with the clamping band 384 is a needle-thread guide member generally designated by the numeral 397, which comprises an apertured head portion 398 which is secured directly against the clamping band by means of the screw 390 in a manner as is best illustrated in Fig. 56. With the member 398 positioned against the clamping band 384, it is to be observed that projecting from the head portion 398 is a needle-thread guide loop in the form of a U-shaped finger 399 and projecting from the lower portion of the member 398 is a substantially C-shaped member 400 which is adapted substantially to surround the lower portion of the needle-bar 10 in a manner as is best disclosed in Fig. 54. An intermediate portion of the loop 400 is provided with an indentation 401 into which the needle thread is adapted to be trained so that the latter may function as a needle-thread guide.

The present needle clamp is designed in a manner so that not only may it accommodate a single needle for the purpose of straightaway or zigzag stitching as the case may be, but the clamp is also designed to accommodate two needles which are often employed in the production of various types of decorative straightaway or zigzag stitching.

In order to accommodate two as opposed to a single needle, the thumb screw 388 may be backed away and thereafter two similar needles 50 and 402 may be inserted into the needle-shank receiving slot 380 in a manner such that the flattened or slabbed portions 394, 394 will be positioned against the slot wall 382 and thereafter the thumb screw 388 may be advanced toward the needles to the end that the conical end 389 will engage the needle 402 so as to bias both needles toward the juncture of the slot walls 382 and 383, thereby to lock the needles in position with the uppermost portions of the needle shanks positioned in engagement with the abutment or gauge screw 390.

From the above, it is to be appreciated that the present needle clamp will accommodate one or two needles without requiring any changes in the clamp structure or any adjustment thereof with the exception of the manoeuvering of the thumb screw 390.

Although the present needle clamp may be employed in conjunction with any standard type of sewing machine, it has been particularly designed for use with a sewing machine employing a circularly moving loop-taker having a loop-seizing hook mounted to move about an upright axis. More specifically, the present clamp has been designed to be used in connection with a loop-taker of the type in which the needles are adapted to descend within the confines of the loop-taker ring for the purpose of presenting their respective needle loops to a loop-seizing beak which travels in a path which completely circumscribes the several needles. In this connection, reference may be had to Figs. 58 and 59 of which the former illustrates a rotary loop-taker ring 264 having a loop-seizing beak 219 which is rotated about a pair of needles 50 and 402 which, when they ascend through the work, throw out a pair of needle loops which will be seized by the loop-seizing beak 219.

In order that the twin needles will be positioned in an optimum relation relative to the loop-seizing beak 219, the wall 382 of the needle-shank receiving slot 380 is formed as a plane which is disposed in a substantially tangential relation with the circular path traveled by the loop-taker beak 219, which path is illustrated by the dotted line 403 of Figure 59. It is to be particularly observed that the opposing slot walls 382 and 404 are each disposed at a slight angle to the line which is drawn at right angles to the direction of work feed, which line in Fig. 59 is indicated by the line 405—405. With the walls 382 and 404 so disposed it will be observed that the right-hand needle 402 will be located slightly behind the left-hand needle 50 relative to the direction of work feed, which distance between the two needles is represented by the letter Z in Figure 59. In actual practice, it has been found that this distance may be in the order of seven thousandths of an inch. As illustrated in Fig. 59, the arc 403, which substantially represents the path of loop-seizing beak movement, is drawn about the radius struck from the axis of the rotary loop-taker, and is represented in Fig. 59 by the letter R.

In connection with the above described needle-clamp, it is to be particularly understood that when two needles are to be employed in conjunction therewith the left-hand needle 50 is located in a position within the needle-bar 10 which is exactly the same position as is taken by the needle when it is singly employed. However, in the present machine the twin needles may be adjusted so that they will normally straddle the center work seam line. This adjustment is made by shifting the lower end of the needle-bar 10 to the left by way of the needle-bight control handle 87. Thereafter, the twin needles may be employed for producing straight or zigzag stitches in conjunction with the rotary loop-taker.

This needle-clamp is disclosed and claimed in my co-pending divisional U. S. patent application Serial No. 626,908, filed December 7, 1956.

Having thus described the nature of my invention, what I claim herein is:

1. An ornamental stitch sewing machine comprising, a needle mounted for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams, means for rotating said cams in synchronism with the needle reciprocating movements, a pair of cam-tracking elements rockably mounted upon laterally spaced axes, means biasing the cam-tracking elements against the cams whereby the elements will track and respond to a plurality of cams, operator-influenced means for selecting different combinations of cams to be tracked by said cam-tracking elements, and transmission mechanism connecting the cam-tracking elements with the needle for shifting said needle sidewise in conformance with the combined cam responses of said cam-tracking elements.

2. An ornamental stitch sewing machine as claimed in claim 1 and wherein said transmission mechanism includes a member having one end thereof connected with said needle, an integrating plate pivotally mounted upon the other end of said member, and spring means biasing said plate against said cam-tracking elements so that the plate will be shifted by said cam-tracking elements.

3. An ornamental stitch sewing machine as claimed in claim 1 and wherein said operator-influenced means includes mechanism operable to shift said cam-tracking elements lengthwise of their axes thereby to select dif-

ferent combinations of cams to be tracked by said elements.

4. An ornamental stitch sewing machine comprising, a needle mounted for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams, means rotating said cams in synchronism with the needle reciprocating movements, a pair of cam-tracking elements rockably mounted about fixed axes, means biasing the cam-tracking elements against the cams whereby the elements will track and respond to a plurality of cams, operator-influenced means for selecting different combinations of cams to be tracked by said cam-tracking elements, transmission mechanism shifting said needle sidewise in conformance with the combined cam responses of said cam-tracking elements, said transmission mechanism including a member having one end thereof connected with said needle, an integrating plate pivotally mounted upon the other end of said member, spring means biasing said plate against said cam-tracking elements so that the plate will be shifted by said elements, guide means confining the plate-carrying end of said member to substantially straight-line movements, operator-influenced means, means connecting the operator-influenced means with the guide means for shifting said guide means and said member relative to said cam-tracking elements thereby to vary the cam response upon said needle.

5. An ornamental stitch sewing machine as claimed in claim 4 and wherein said cam-tracking elements are rockably mounted about laterally spaced axes for independent rocking movements in response to the actions of the various cams.

6. An ornamental stitch sewing machine comprising, a needle mounted for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams mounted upon a common axis, means rotating said cams in synchronism with the needle reciprocating movements, a pair of cam-tracking elements rockably mounted about and shiftably mounted lengthwise of a pair of laterally spaced axes for tracking and responding to said cams, operator-influenced means, means connecting the operator-influenced means with the cam-tracking elements for shifting said cam-tracking elements lengthwise of their axes thereby to select different cams to be tracked by said elements, transmission mechanism shifting said needle sidewise in conformance with the cam responses of said cam-tracking elements, said transmission mechanism including a member having one end thereof connected with said needle, an integrating plate pivotally mounted upon the other end of said member, spring means biasing said plate against said cam-tracking elements so as to receive movements therefrom, means confining the plate-carrying end of said member to substantially straight-line movements, and operator-influenced means for shifting said last mentioned means and said member relative to said cam-tracking elements thereby to vary the cam response upon said needle.

7. A control mechanism for an ornamental stitch sewing machine having a frame and members in said frame to be controlled by said mechanism, comprising, a plurality of differently shaped cams mounted for rotation about a common axis fixed by said frame, means rotating said cams about their common axis, a pair of cam-tracking arms each pivotally mounted upon a respective one of a pair of laterally spaced axes fixed by said frame in parallelism with the cam axis, spring means biasing said arms against selected cams whereby they will engage and respond to selected cam surfaces, means connecting said arms with the members to be controlled whereby said members may be actuated in response to the surfaces of selected cams, operator-influenced means, and means connecting the operator-influenced means with the arms for sequentially pivoting each arm about its axis in opposition to the spring means thereby to withdraw each arm from engagement with a selected cam and for shifting each arm lengthwise of its axis after it has been withdrawn from engagement with a selected cam whereby different cams may be selected for engagement by each arm.

8. A control mechanism for an ornamental stitch sewing machine having a frame and members in said frame to be controlled by said mechanism, comprising, a plurality of differently shaped cams mounted for rotation about a common axis fixed by said frame, means rotating said cams about their common axis, a pair of cam-tracking arms each pivotally mounted upon a respective one of a pair of laterally spaced axes fixed by said frame in parallelism with the cam axis, spring means biasing said arms against selected cams whereby they will engage and respond to the selected cam surfaces, means connecting said arms with the members to be controlled whereby said members may be actuated in response to the surfaces of selected cams, and operator-influenced means for sequentially pivoting each arm about its axis in opposition to the spring means thereby to withdraw each arm from engagement with a selected cam and for shifting each arm lengthwise of its axis after it has been withdrawn from engagement with a selected cam whereby different cams may be selected for engagement by each arm; said operator-influenced means including handle means mounted upon said frame for reciprocating movements along and for turning movements about a fixed axis, means operatively connecting said handle means with said arms for pivoting said arms about their axes in response to reciprocating movements of said handle means, and means operatively connecting said handle means with said arms for shifting said arms lengthwise of their axes in response to turning movements of said handle means.

9. A control mechanism for an ornamental stitch sewing machine having a frame and members in the frame to be controlled by the mechanism, comprising, a plurality of differently shaped cams each mounted for rotation about an axis fixed by the frame, means rotating each cam about its axis, a plurality of cam-tracking arms each pivotally mounted upon and about an axis fixed by the frame, spring means biasing the arms against selected cams whereby they will engage and respond to selected cam surfaces, means connecting the arms with members to be controlled whereby the members may be actuated in response to the surfaces of selected cams, operator-influenced means, and means connecting the operator-influenced means with the cam-tracking arms for shifting the cam-tracking arms relative to each other thereby to select different cams to be tracked by such arms.

10. An ornamental stitch sewing machine comprising a frame, a needle mounted on the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary cam mounted upon and about an axis fixed by the frame, means rotating the cam in synchronism with the needle reciprocating movements, transmission mechanism carried by the frame and including a substantially flat plate, two plate-engaging elements, spring means biasing one face of the plate against the two elements, means connecting a first of the two elements to the cam whereby such element in response to the movements of the cam will fulcrum the plate about the second element, operator-influenced means, means connecting the operator-influenced means with the second of the two elements for adjusting the second of the two elements back and forth whereby the second element will fulcrum the plate about the first element, and means supporting the plate within the frame and connecting the plate with the needle whereby the swinging movements of the plate about the elements will shift the needle sidewise.

11. An ornamental stitch sewing machine as claimed in claim 10 and comprising second operator-influenced means, means connecting the second operator-influenced means with the plate for shifting the plate laterally

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of the two elements thereby to alter the amplitude of movement imparted to the needle by the cam.

12. An ornamental stitch sewing machine comprising a frame, a needle mounted on the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary cam mounted about an axis fixed by the frame, means rotating the cam in synchronism with the needle reciprocating movements, transmission mechanism including a member having one end connected with the needle for shifting the latter sidewise, a substantially flat plate pivotally mounted upon the other end of the member, two plate-engaging elements, a spring biasing one face of the plate against the two elements, means connecting a first of the two elements to the cam whereby such element in response to the movements of the cam will fulcrum the plate about the second element, operator-influenced means, means connecting the operator-influenced means with the second element for adjusting the second element back and forth to various preselected positions whereby the second element as a result of such movement will fulcrum the plate about the first element, second operator-influenced means, and means connecting the second operator-influenced means with the plate for shifting the plate laterally of the two elements thereby to alter the amplitude of movement imparted to the needle by the cam.

13. An ornamental stitch sewing machine comprising a frame, a needle mounted on the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a rotary cam mounted about an axis fixed by the frame, means rotating the cam in synchronism with the needle reciprocating movements, transmission mechanism including a member having one end connected with the needle for shifting the needle sidewise, a substantially flat plate pivotally mounted upon the other end of the member about an axis disposed in parallelism with one face and midway between opposing sides of the member, two plate-engaging elements, a spring normally biasing one face of the plate against the two elements whereby the two elements normally engage the face of the plate at opposite sides of the plate pivot axis, means connecting a first of the two elements to the cam whereby such element in response to the movements of the cam will fulcrum the plate about the second element thereby normally to shift the needle sidewise, operator-influenced means, and means connecting the operator-influenced means with the plate for shifting the plate laterally of the two elements thereby to alter the amplitude of sidewise movements imparted to the needle by the cam.

14. An ornamental stitch sewing machine as claimed in claim 13 and comprising second operator-influenced means, means connecting the second operator-influenced means with the second element for adjusting the second element toward and away from the plate to various preselected positions whereby the second element as a result of such movement will fulcrum the plate about the first element.

15. An ornamental stitch sewing machine comprising a frame, a needle mounted in said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, intelligence record-carrying means having a plurality of different response-producing records mounted on said frame, intelligence pick-up means mounted on said frame for sensing and responding to at least portions of different selected pluralities of records of said record-carrying means in reaction to relative movement between said pick-up means and said record-carrying means, means for producing such relative movement simultaneously with the needle reciprocating movements, means enabling at least portions of selected pluralities of records to be sensed by said pick-up means, operator-influenced means connected with said last mentioned means for selecting different pluralities of records to be sensed by said pick-up means, and transmission means operatively connecting said pick-up means with said needle for shifting said needle sidewise in response to the actuation of said pick-up means by the selected records.

16. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams mounted on said frame, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to at least portions of different selected pluralities of cams in reaction to the rotation of said cams, means enabling at least portions of selected pluralities of cams to be tracked by said cam-tracking means, operator-influenced means connected with said last mentioned means for selecting different pluralities of cams to be tracked by said cam-tracking means, and transmission means operatively connecting said cam-tracking means with said needle for shifting said needle sidewise in response to the actuation of said cam-tracking means by the selected cams.

17. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams mounted on said frame, means for rotating said cams simultaneously with the needle reciprocating movements, a pair of cam-tracking elements mounted on said frame for tracking and responding to at least portions of different selected pluralities of cams in reaction to the rotation of said cams, means enabling at least portions of selected pluralities of cams to be tracked by said pair of cam-tracking elements, operator-influenced means connected with said last mentioned means for selecting different pluralities of cams to be tracked by said pair of cam-tracking elements, and transmission means operatively connecting said pair of cam-tracking elements with said needle for shifting said needle sidewise in response to the actuation of said pair of cam-tracking elements by the selected cams.

18. A control mechanism for an ornamental stitch sewing machine having a frame and members in the frame to be controlled by the mechanism, comprising a plurality of differently shaped cams each mounted for rotation about a common axis fixed by the frame, means rotating the cams about the common axis, a pair of cam-tracking elements each pivotally mounted independently of the other about and shiftable lengthwise of an axis fixed by the frame in parallelism with the cam axis, spring means biasing the elements against different selected cams whereby they will engage and respond to selected cam surfaces, means connecting the elements with the members to be controlled whereby the members may be actuated in response to the surfaces of selected cams, and operator-influenced means connected with the cam tracking elements for shifting the elements relative to each other and lengthwise of their axes thereby to select different cams to be tracked by such elements.

19. A control mechanism as claimed in claim 18 and wherein said pair of cam-tracking elements are pivotally mounted about laterally spaced axes for independent pivotal movements in response to the actions of the various cams.

20. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, intelligence record-carrying means having a plurality of different response-producing records mounted on said frame, intelligence pick-up means mounted on said frame for sensing and responding to at least portions of different selected pluralities of records of said record-carrying means in reaction to relative movement between said pick-up means and said record-carrying means, means for producing such relative

movement simultaneously with the needle reciprocating movements, means enabling at least portions of selected pluralities of records to be sensed by said pick-up means, operator-influenced means connected with said last mentioned means for selecting different pluralities of records to be sensed by said pick-up means, transmission means operatively connecting said pick-up means with said needle for shifting said needle sidewise in response to the actuation of said pick-up means by the selected records, and operator-influenced means connected with said transmission means for varying its reaction to the said response thereby to alter the pattern of sidewise needle movements.

21. An ornamental stitch sewing machine comprising, a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a series of more than two rotary cams mounted upon a common axis fixed by said frame, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to at least portions of any two selected cams of said series in reaction to the rotation of said cams, means enabling at least portions of any two cams of said series to be tracked by said cam-tracking means, operator-influenced means connected with said last mentioned means for selecting different combinations of cams to be tracked by said cam-tracking means, and transmission means operatively connecting said cam-tracking means with said needle for shifting said needle sidewise in response to the actuation of said cam-tracking means by the selected cams.

22. An ornamental stitch sewing machine comprising, a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary cams mounted upon a common axis fixed by said frame, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to at least portions of different selected pluralities of cams in reaction to the rotation of said cams, means enabling said cam-tracking means to be shifted back and forth lengthwise of the common cam axis for selecting different pluralities of cams to be tracked, operator-influenced means connected with said last mentioned means for shifting the latter lengthwise of the common cam axis, and transmission means operatively connecting said cam-tracking means with said needle for shifting said needle sidewise in response to the actuation of said cam-tracking means by the selected cams.

23. An ornamental stitch sewing machine comprising, a hollow frame, a needle mounted in the frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a pitman located within the frame and having a first end thereof connected with the needle for imparting sidewise movements thereto, a plurality of differently shaped cams mounted within the frame for rotation about a common axis fixed by the frame, means rotating the cams about their common axis in synchronism with the needle reciprocating movements, a cam-tracking arm pivotally mounted about an axis fixed by the frame in parallelism with the cam axis for engaging and responding to the surface of a selected cam, means connecting the arm with the second end of the pitman whereby the pitman may be actuated in response to the surface of a selected cam, such last mentioned means including a spring which biases the arm into engagement with a selected cam, and operator-influenced means for sequentially pivoting the arm about its axis against the action of the spring to withdraw the arm from engagement with a selected cam surface and for shifting the arm lengthwise of its axis after it has been withdrawn from engagement with a selected cam whereby different

cams may be selected for engagement by the arm, said operator-influenced means including a handle mounted upon the outside of the frame for reciprocating movements along and for turning movements about a fixed axis, means operatively connecting the handle with the arm for pivoting the arm about its axis in response to reciprocating movements of the handle, means operatively connecting the handle with the arm for shifting the arm lengthwise of its axis in response to turning movements of the handle, and operator-influenced means disposed between the second end of the pitman and the arm for varying the reactions of the pitman to a selected cam response thereby to alter the pattern of sidewise needle movements.

24. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of different rotary edge cams mounted adjacent each other on said frame about a fixed common axis with each of said cams having an undulated peripheral cam edge surface, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to different selected cam surfaces in reaction to the rotation of said cams, means enabling selected cams to be tracked by said cam-tracking means, operator-influenced means connected with said last mentioned means for selecting different cams to be tracked by said cam-tracking means, transmission means operatively connecting said cam-tracking means with said needle for shifting said needle sidewise in response to the actuation of said cam-tracking means by the selected cam, and an additional edge cam mounted upon said frame adjacent the first mentioned cams and coaxially about said common cam axis with the peripheral cam edge surface of said additional cam being formed concentrically about such common axis, said operator-influenced means being capable of effecting an engagement between said additional cam and said cam-tracking means thereby to immobilize said cam-tracking means in a predetermined position.

25. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation, and for sidewise movements transversely of the direction of reciprocation, a plurality of rotary edge cams mounted adjacent each other on said frame about a fixed common axis with each of said cams having an undulated peripheral cam edge surface, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to at least portions of different selected pluralities of cams in reaction to the rotation of said cams, means enabling at least portions of selected combinations of cams to be tracked by said cam-tracking means, operator-influenced means connected with said last mentioned means for selecting different pluralities of cams to be tracked by said cam-tracking means, transmission means operatively connecting said cam-tracking means with said needle for shifting said needle sidewise in response to the actuation of said cam-tracking means by the selected cams, and at least one additional edge cam mounted upon said frame adjacent the first mentioned cams and coaxially about said common cam axis with the peripheral cam edge surface of said additional cam being formed concentrically about such common axis, said operator-influenced means being capable of effecting an engagement between said additional cam and said cam-tracking means.

26. An ornamental stitch sewing machine comprising a frame, a needle mounted on said frame for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, a plurality of rotary edge cams mounted adjacent each other on said frame about a fixed common axis with each of said cams having an

undulated peripheral cam edge surface, means for rotating said cams simultaneously with the needle reciprocating movements, cam-tracking means mounted on said frame for tracking and responding to at least portions of different selected pluralities of cams in reaction to the rotation of said cams, means enabling at least portions of selected combinations of cams to be tracked by said cam-tracking means, operator-influenced means connected with said last mentioned means for selecting different pluralities of cams to be tracked by said cam-tracking means, transmission means operatively connecting said cam-tracking sheets with said needle for shifting said needle sidewise in response to the selection of said cam-tracking means by the selected cams, and a plurality of additional edge cams mounted upon said frame adjacent the first mentioned cams and coaxially about said common cam axis with the peripheral cam edge surfaces of said additional cams being formed concentrically about such common axis but with each peripheral cam edge surface having a different radius with respect to the common cam axis, said operator-influenced means being capable of effecting an engagement between any one of said additional cams and said cam-tracking means.

27. A control mechanism for an ornamental stitch sewing machine having a frame and members in the frame to be controlled by the mechanism, comprising a plurality of differently shaped rotary edge cams mounted adjacent each other about a fixed common axis with each of said cams having an undulated peripheral cam edge surface, means rotating the cams about the common axis, a pair of cam-tracking elements each pivotally mounted independently of the other about and shiftable lengthwise of an axis fixed by the frame in parallelism with the cam axis, spring means biasing the elements against different selected cams whereby they will engage and respond to selected cam surfaces, means connecting the elements with the members to be controlled whereby the members may be actuated in response to the surfaces of selected cams, operator-influenced means connected with the cam-tracking elements for shifting the elements relative to each other and lengthwise of their axes thereby to select different cams to be tracked by such elements, and at least one additional edge cam mounted upon said frame adjacent the first mentioned cams and coaxially about said common cam axis with the peripheral cam edge surface of said additional cam being formed concentrically about such common axis, said operator-influenced means being capable of effecting an engagement between at least one of said cam-tracking elements and said additional cam thereby to immobilize such cam-tracking element in a predetermined position.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,862,468 December 2, 1958

Ralph E. Johnson

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 10, line 30, for "designed" read -- designated --; column 17, line 26, for "the", first occurrence, read -- and --.

Signed and sealed this 14th day of April 1959.

(SEAL)
Attest:

KARL H. AXLINE
Attesting Officer

ROBERT C. WATSON
Commissioner of Patents

[fols. 4591-4644] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 184

U. S. Patent Office, December 14, 1954, Division 24

November 29, 1954.

Ornamental Stitch Sewing Machine

. . . . . .

[fol. 4645] Having thus described the nature of my invention, what I claim herein is:

1. An ornamental stitch sewing machine comprising, a needle mounted for endwise reciprocating and for sidewise movements transversely of the direction of reciprocation, intelligence record-carrying means having a plurality of different response-producing records, intelligence pick-up means for sensing and responding to selected combinations of a records of said record-carrying means in reaction to relative movements between said pick-up means and said record-carrying means, means for producing such relative movements in synchronism with the needle reciprocating movements, and transmission mechanism for shifting said needle sidewise in conformance with the combined record response.

. . . . . .

[fol. 4646] 8. An ornamental stitch sewing machine comprising, a needle mounted for endwise reciprocation and for sidewise movements transversely of the direction of reciprocation, rotary cam means having a plurality of different response-producing records, cam-tracking means for tracking and responding to a selected combination of cam records of said cam means in reaction to rotary movements of said cam means, means for rotating said cam means in synchronism with the needle reciprocating movements, and [fols. 4647-4687] transmission mechanism for shifting said needle sidewise in conformance with the record responses of said cam-tracking means.

. . . . . .

[fol. 4688] DEPARTMENT OF COMMERCE

United States Patent Office

Washington

Mailed January 30, 1956, Patent Division.

Joel G. Stanford
c/o The Singer Mfg. Co.
Elizabeth F, New Jersey

Applicant: Ralph E. Johnson
Ser. No: 471,766
Filed: November 29, 1954
For: Ornamental Stitch Sewing Machines

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

Responsive to amendment filed Nov. 28, 1955.

Additional references applied:

Magowan (Br.)	19,184	of	1908	112/158

(2 shts. dwg. 4 pp. spec.)

Haas (Swiss)	300,900	Nov. 1,	1954	112/158

(1 sht. dwg. 5 pp. spec.)

This application now contains claims 1-74 inclusive.

The following claim, found allowable, is suggested for the purpose of interference. Applicant should make same by March 5, 1956 under the provisions of Rule 203. In making this ~~claim applicant is required~~ to overcome the filing date (Rule 131) of the Harris patent, of record, which shows the construction set forth in the claim; failure to do so will be considered a disclaimer of the subject matter involved:

> A sewing machine comprising a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements, a rotary shaft mounted in said frame for reciprocating

said needle, means for rotating said shaft, a series of rotary cams carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surfaces of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis thereby to effect a complete traverse of said series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for [fols. 4689-4711] withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

Claims 1-12 inclusive are rejected as lacking invention over Harris, of record or Magowan in view of Haas, the latter two cited above. To utilize a double acting cam follower as suggested by the followers 28 and 29, Figure 1 of Haas in lieu of the single cam followers utilized by Harris or Magowan would not involve invention but mere mechanical skill.

Claims 13-74 inclusive stand withdrawn from further consideration by the examiner, Rule 142(b), as being for a nonelected invention. Election was made without traverse in paper No. 5.

Thomas J. Hickey, Examiner.

JFranklin/md

[fol. 4712] U. S. DEPARTMENT OF COMMERCE

United States Patent Office
Washington

Mailed September 12, 1957, Patent Division 24

Joel G. Stanford
% The Singer Mfg. Co.
Elizabeth F, N. J.

Paper No. 10

Applicant: Ralph E. Johnson
Ser. No.: 471,766
Filed: November 29, 1954
For: Ornamental Stitch
Sewing Machines

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

Responsive to amendments filed July 9, 1956 and July 1, 1957.

. . . . . .

Claims 1-5, 8-11 and 86-88 are each rejected as failing to patentably define from the suggested claim in paper [fols. 4713-4714] number 6. The suggested claim sets forth a sewing machine, a frame, needle, a series of rotary cams, a cam follower, said series of cams and said follower being relatively shiftable lengthwise of the common cam axis, etc., and applicant has failed to patentably distinguish therefrom.

. . . . . .

[fols. 4715-4751] The above cited references have been placed of record in this case at the request of the applicant.

Claims 1-12 inclusive and 75-97 inclusive stand rejected.

Thomas J. Hickey, Examiner.

GAMysLiwiec/pvp

[fols. 4752-4985] U. S. DEPARTMENT OF COMMERCE

Patent Office

Washington

Notice of Allowance

Mailed September 26, 1958

The application for patent identified below has been examined and found allowable for issuance of Letters Patent.

Filing Date: 11/29/54
Serial No: 471766
No. Claims Allowed: 27
Examiner: T. J. Hickey
Applicant: Johnson, Ralph E., Montainside, N. J.
Assignee: Singer Manufacturing Company, The

Title of Invention: Ornamental stitch sewing machines

With the allowance of the application the final fee becomes due. This fee is thirty dollars ($30) plus one dollar ($1) for each claim allowed in excess of twenty (20) and must be paid within 6 months from the date of this notice. Failure to remit the final fee will result in the patent being withheld from issue.

As a convenience in remitting this fee, use of the enclosed Form POL-85a is suggested. The final fee will not be received from anyone other than the applicant, his assignee or attorney, or a party in interest as shown by the records of the Patent Office.

If it is desired to have the patent issued to an assignee or assignees, an assignment, together with the fee for recording the same, must be filed in this Office on or before the date of payment of the final fee.

The patent will be issued and forwarded within approximately two months after receipt of the final fee.

By direction of the Commission.

Joel G. Stanford & M. J. Breen, The Singer Mfg. Co., Elizabeth F. N. J.

[fol. 2582] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 188 (S-22)

Exhibit S-22
(Under Par. 115)

Machine-Carried Multiple Cam Zigzag Sewing Machines Exported to the United States From Europe Which Infringed Any of the Patents Listed Below

		Gegauf #1 Pat. No. 2,832,302	Harris Reissue (RE 24370)	Johnson Pat. No. 2,862,468
A. Non-Licensees	Model Names			
1. Husqvarna	Automatic Class 21A	X	X	
	Automatic Class 51	X	X	
2. Phoenix	Automatic Model 283	X	X	
B. Licensees				
1. Gegauf	Bernina Record	X		
	Bernina Favorit	X		
2. Gritzner-Kayser	Sears, Roebuck Lady Kenmore	X		
3. Vigorelli	Robot	X		X

[fol. 2583] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 189 (S-23)

Exhibit S-23
(Under Par. 116)

Machine-Carried Multiple Cam Zigzag Sewing Machines Exported to the United States in 1957, 1958 or 1959 From Europe and Japan Which Infringed the Second Gegauf Patent or the Perla Patent

		Gegauf #2 Pat. No. 2,877,726	Perla Pat. No. 2,810,360
	European		
	Model Names		
Gritzner-Kayser	White Automatic Model 666[1]	X	
	Model 360	X	
Pfaff	Model 260	X	
Turissa	Novomatic	X	
	Japanese		
Sanwa	SZ-211	X	
	SZP-28	X	
Fukoku	ZA-2CA Vogue Stitch Model 88		X

[1] No imports after 1958.

[fol. 2584]

IN UNITED STATES

GOVERNMENT'S EXH

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	1952	1953	1954	1955	1956	1957	1958	1959	1960	Total Units Sold
Straight Stitch Machines	517,000	490,141	544,431	518,165	464,988	381,365	355,384	363,473	312,220	3,947,443
Class 206 (8(a))	2,720	20,072	24,573	579	838	305	366	0	0	49,453
Class 306 (8(b))	0	0	15,712	68,687	48,014	19,308	9,927	13,308	10,399	185,355
Class 403 (8(b))	0	0	0	0	0	0	0	50,269	88,553	138,822
Class 319 (8(c))	0	0	0	0	56,965	31,838	4,199	1,023	0	94,025
Class 401 (8(c))	0	0	0	0	0	74,503	147,446	155,422	155,832	533,203
Miscellaneous	40	7	24	31	38	98	202	800	3,069	4,309
Total	519,760	510,220	584,740	587,462	570,843	507,417	517,524	584,295	570,349	4,952,610

IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 190 (S-24)

Exhibit S-24

United States Sales of Household Machines by Style and Year 1952 through 1960

1956	1957	1958	1959	1960	Total Units Sold	1956 Average Unit Retail Price	1956 Approximate Total Sales Value	1957 Average Unit Retail Price	1957 Approximate Total Sales Value	1958 Average Unit Retail Price	1958 Approximate Total Sales Value	1959 Average Unit Retail Price	1959 Approximate Total Sales Value	1960 Average Unit Retail Price	1960 Approximate Total Sales Value
464,988	381,365	355,384	363,473	312,226	3,947,443	$ 0	$58,406,419.	$ 0	$50,402,830.	$ 0	$48,418,018.	$ 0	$ 42,845,195.	$ 0	$ 35,339,379.
838	305	366	0	0	49,453	162.50	136,175.	162.50	49,562.	162.50	59,475.	0	0	0	0
						162.50		162.50							
48,014	19,308	9,927	13,808	10,399	185,355	250.00	10,191,637.	240.00	3,261,550.	240.00	2,382,480.	190.00	2,528,520.	160.00	1,663,840.
0	0	0	50,269	88,553	138,822	0	0	0	0	0	0	240.00	12,064,560.	240.00	21,252,720.
								290.00							
56,965	31,838	4,199	1,023	0	94,025	290.00	16,519,850.	280.00	8,763,570.	260.00	1,091,740.	260.00	265,980.	0	0.
0	74,503	147,446	155,422	155,832	533,203	0	0	300.00	22,350,900.	300.00	44,233,800.	300.00	46,626,600.	300.00	46,749,600.
38	98	202	800	3,069	4,309	—	—	—	—	—	—	—	—	—	306,900.
570,843	507,417	517,524	584,295	570,349	4,952,610		$85,254,081.		$84,828,412.		$96,205,713.		$104,410,855.		$105,312,439.

[fol. 2585]

IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 191 (S-25)

Exhibit S-25
(under Par. 130)

Japanese Zigzag Sewing Machines Imported Into United States

	1957		1958		1959	
Multiple Cam		30,142 (13.0)		44,994 (13.3)		57,732 (9.0)
Infringing Gegauf Pat. No. 2,832,302	30,142 (100%)		41,219 (91.6%)		39,344 (68.1%)	
Non-infringing Gegauf Pat. No. 2,832,302			3,775 (8.4%)		18,388 (31.9%)	
Replaceable Cam		85,368 (36.7)		91,396 (27.0)		206,539 (32.3)
Manual		117,121 (50.3)		202,041 (59.7)		375,111 (58.7)
Total		232,631 (100%)		338,431 (100%)		639,382 (100%)

[fol. 2586] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 192 (S-26)

Exhibit S-26
(Under Par. 130)

Number of Multiple Cam Japanese Zigzag Sewing Machines Imported Into United States Which Come Within Gegauf Patent No. 2,832,302, Set Forth by Manufacturer and Trade Name

Manufacturer	Manufacturer's Model No.	American Trade Name	1957	1958	1959
Banshu	BWZ-50	New Home Model 8033		1,000	1,000
Koyo Seiko		New Home Model 8033A			1,500
	SAZ-803	Free-Westinghouse 803A			7,500
Nippon	HZ3-B1	Selectomatic 90	9,040	4,750	7,300
	HZ3-B3	Superselectomatic 100	4,200	5,178	5,400
	HZ3-B4	Wizard 150		6,945	12,413
	HZ3-B5	Sovereign 170			2,001
	FZ2-B1	Pacesetter 200	1,202	396	
	HZ3-B6	Coronado 250			30
Sankyo Seiki	FAZ-567	Sewmor 770 (Old Design)	550	3,000	
	SAZ-456	Belair 990 (Old Design)	3,200	3,600	
Sanshin	AZ-5	Two Selector Handle Model	8,300	2,650	
	AZ-10	Single Dial	3,650	12,700	900
	AZ-201	Design-O-Matic		1,000	1,300
		Total	30,442	41,219	39,344

[fol. 2587] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 193 (S-27)

Exhibit S-27
(under Par. 130)

Number of Multiple Cam Japanese Zigzag Sewing Machines Imported into United States which Do Not Come Within Gegauf Patent No. 2,832,302, set forth by Manufacturer and Trade Name.

Manufacturer	Manufacturer's Model No.	American Trade Name	1957	1958	1959
Feather	F-120	Universal TViewer Model			3,103
Fukoku	ZA-2CA	Vogue Stitch 88		249	800
Kyokuto	KEZ-100	Modern 116 and Vogue Stitch Model D			2,850
	KEZ-201	Alden's Cam 3-In-1			
Sankyo Seiki	(FAZ-567-2 (FAZ-30-2 (SAZ-456-2	Sewmor 770 (New Design)		600	6,400
	(SAZ-20-2	Sewmor 990 (New Design)		925	2,550
	FAZ-740	Viscount 740		2,001	2,000
Sanwa	SZ-211				510
	SZP-28				175
		Total		3,775	18,388

[fol. 2588] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 194 (S-28)

Exhibit S-28
(under Par. 131)

European Zigzag Machine Carried Multiple Cam and Replaceable Cam Sewing Machines Imported Into United States

	1957		1958		1959	
Machine-Carried Multiple Cam		19,051		21,083		40,773
Coming within Gegauf Pat. No. 2,832,302 and imported by licensees	2,072		4,055		23,075	
Coming within Gegauf Pat. No. 2,832,302 and imported by non-licensees	3,660		3,104		6,349	
Not coming within Gegauf Pat. No. 2,832,302	13,319		13,924		11,349	
Replaceable Cam		37,129		29,698		26,395
Total		56,180		50,781		67,168

[fol. 2589] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 195 (S-29)

Exhibit S-29
(under Par. 131)

Number of Multiple-Cam European Zigzag Sewing Machines Imported into the United States which Come Within Gegauf Patent No. 2,832,302, set forth by Manufacturer and Trade Name

		1957	1958	1959
Licensed				
Gegauf	Record and Favorit	1,600	3,405	2,150
Vigorelli	Robot	472	400	
Gritzner-Kayser	Lady Kenmore		250	20,925
	Total	2,072	4,055	23,075
Not Licensed				
Husqvarna	Class 21 A	2,500	3,021	5,500
	Class 51	750		700
Phoenix	Model 283	410	83	149
	Total	3,660	3,104	6,349
	Grand Total	5,732	7,159	29,424

[fols. 2590-2674] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 196 (S-30)

Exhibit S-30
(Under Par. 131)

Number of Multiple-Cam European Zigzag Sewing Machines Imported into the United States which do not come within Gegauf Patent No. 2,832,302, set forth by Manufacturer and Trade Name

		1957	1958	1959
Borletti		2,909	500	625
Gritzner-Kayser	White Model 666	1,400		
Pfaff	Models 260 and 360	9,010	13,424	10,714
Turissa	Novomatic			10
	Total	13,319	13,924	11,349

[fol. 2675]

In United States District Court

Government's Exhibit 197 (S-86)

Exhibit S-86
(Par. 147)

Manufacturer	Model Name	Type of Machine	Price
Turissa	Turissa Novomatic	Multiple Cam	$349.50
Gritzner-Kayser	White Automatic Model 667	Multiple Cam	344.00
Vigorelli	Vigorelli Robot	Multiple Cam	339.50
Pfaff	Pfaff Automatic 360	Multiple Cam	339.00-300.00
Necchi	Necchi Supernova	Replaceable Cam	339.00
Bernina	Record and Favorit	Multiple Cam	329.50
Pfaff	Pfaff Automatic 260	Multiple Cam	329.00-300
Borletti	Borletti New Home Model 1102	Multiple Cam	329.00
Tavaro	Elna Supermatic	Replaceable Cam	300.00
Sankyo Seiki	Consolidated "770" (Old and New Design)	Multiple Cam	290.00-190.00
Husqvarna	Viking Model 21A	Multiple Cam	289.00
Aichi Kogyo	Morse Duomatic	Replaceable Cam	280.50
Nippon	Brother Super Flairmatic 190B Model	Manual	269.95
Pfaff	Pfaff Automatic 360	Multiple Cam	268.97
Pfaff	Pfaff Automatic 260	Multiple Cam	265.00
Tavaro	Elna Supermatic	Replaceable Cam	264.95
Sankyo Seiki	Consolidated "990" (Old and New Design)	Multiple Cam	250.00-150.00
Sanshin	Universal Two Selector Handle Model	Multiple Cam	250.00
Husqvarna	Husqvarna Class 19	Manual	250.00
Gritzner-Kayser	Lady Kenmore	Multiple Cam	248.00
Nippon	Brother Pacesetter 200	Multiple Cam	239.00
Adler	Adlermatic Model 589A	Replaceable Cam	228.00
Anker Phoenix	Phoenix Automatic Model 283	Multiple Cam	220.00
Aichi Kogyo	White Model 670	Replaceable Cam	209.95
Sanshin	Universal Single Dial Model	Multiple Cam	206.00
Marusen	Kenmore Model F	Replaceable Cam	204.95

Manufacturer	Model Name	Type of Machine	Price
Koyo Seiko	Free Westinghouse Model 803A	Multiple Cam	200.00
Kyukoto	Modern Model 116	Multiple Cam	199.95
Anker	Anker Model RZK	Replaceable Cam	192.50
Sanshin	Gimbel's Single Dial	Multiple Cam	189.95
Nippon	Brother Selectomatic 90	Multiple Cam	189.00
Tavaro	Elna Zigzag	Manual	184.00
Nippon	Brother Selectomatic Model 100	Multiple Cam	180.00
Nippon	Brother Super Wizard	Multiple Cam	159.95
Fukoku	Vogue Stitch Model 88	Multiple Cam	159.50-99.50
Nippon	Brother Galaxie Model 230	Replaceable Cam	159.00
Happy	Montgomery-Ward Automatic	Replaceable Cam	155.00
Gritzner-Kayser	White Automatic Model 666	Multiple Cam	150.00
Happy	Signature 23 Jewel Automatic	Replaceable Cam	149.95
Sanshin	Fleetwood Zigzag	Multiple Cam	148.00
Nippon	Brother Electra Model 140	Manual	140.00
Nippon	Brother Sovereign Model 170	Multiple Cam	139.95
Nippon	Brother Coronado Model 250	Multiple Cam	139.95
Koyo Seiko	Free Westinghouse Model 603	Manual	139.50
Kyukoto	Vogue Stitch Model D	Multiple Cam	139.50
Manufacturer unknown	Signature 7 Jewel Automatic	Replaceable Cam	129.00
Sankyo Seiki	Consolidated Sewmor Model 770	Multiple Cam	129.00
Sankyo Seiki	Consolidated Belair Model 740	Multiple Cam	129.00
Sankyo Seiki	Consolidated Belair Model 990	Multiple Cam	129.00
Sanshin	Universal Design-O-Matic	Multiple Cam	123.50
Banshu	New Home Model 8033	Multiple Cam	110.00
Feather	Universal TViewer Model FSZ 120	Multiple Cam	96.20
Kyukoto	Alden's Automatic Cam 3-in-1	Multiple Cam	93.10
Nishizawa	Montgomery-Ward Signature Model URR-789A	Manual	84.95
Koyo Seiki	New Home Model 6033	Manual	80.00

[fols. 4986-5001] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 199

October 29, 1957.

Mr. G. Kirker,
Deriaz, Kirker & Cie,
Rue Du Mont-Blanc 14,
Geneva, Switzerland.

Dear Mr. Kirker:

Gegauf's U.S. Patent Application Serial No. 358,377.

Thank you for your letter of October 25, Ref. K/JP, giving us a résumé of your talks with Mr. Willi.

The U.S. Application Serial No. 358,377 of Gegauf has been examined by us and we find that this single application is based upon two Swiss patent applications, namely Serial No. 80,461, May 31, 1952 and Serial No. 91,361, April 22, 1953. There exists another U.S. Gegauf application Ser. No. 435,832 which we have not seen but which we presume corresponds to a Swiss application of June 18, 1953 and a British patent No. 755,891.

Mr. Strauss, the U.S. Patent Agent of Gegauf, advises us that he has prepared and sent to Mr. Gegauf for execution a third U.S. patent application which claims certain features which the U.S. Patent Office would not allow him to claim in application No. 358,377. This we had not known previously. In other words this third unfiled [fol. 5002] U.S. application has been carved out of U.S. application No. 358,377.

The second U.S. application No. 435,832 we believe relates to the idea if having two zigzag mechanisms, one for fancy stitching and one for the usual zigzag stitching with means for shifting at the will of the operator from one mechanism to the other. If this is the "divisional" application to which Mr. Gegauf refers, then we are not and we are now of the opinion that it is interested in it and it is not necessary that it be included in the proposed agreement.

We are, however, interested in acquiring ownership to

the third unfiled U.S. patent application as it discloses and claims material taken from the original U.S. application No. 358,377, about which we have all along been negotiating. Without having this, the acquisition of the original application would be of only small value to us, if any.

As to the second point, we would if necessary, agree to permit Necchi and Pfaff in addition to Vigorelli to continue to sell their respective machines in the United States without fear of being charged with infringement of the claims which may be allowed as a result of U.S. patent application No. 358,377.

The third point, which relates to the value to be placed upon application No. 358,377, we have to say that we would be willing to pay $62,500 for the outright sale of application No. 358,377 to Singer. If you find it necessary we authorize you to go as high as $75000 for the outright sale to Singer.

[fol. 5003] We suggest that you again contact Mr. Willi and make known to him our position in this matter, viz.:

Singer will accept the U.S. patent application Serial No. 358,377 as it now stands, together with any divisional applications which may be carved directly therefrom.

Singer will not ask that Gegauf's U.S. application No. 435,832 be included in the agreement.

Singer will agree to permit Necchi, Pfaff and Vigorelli to continue to sell their respective sewing machines in the United States as far as U.S. Patent application No. 358,377 is concerned.

Singer will pay $62,500 for the outright sale of patent application No. 358,377 by Gegauf to Singer. If necessary, you are authorized to offer $75,000 for the application.

[fol. 5004] * In view of our concessions we hope that you can obtain acceptance of our above proposal.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman.

"* We are only repeating when we say again that standing alone we are still of the opinion, even after have examined the file at Washington, the patents ultimately secured are

[fol. 5005]

IN UNITED STATES DISTRICT COURT
GOVERNMENT'S EXHIBIT 200

Now the great Slant-O-Matic has two t

All 3 machines have the SINGER Slant-Needle that makes your sewin

New! SLA
machine. H
lower pric
front of the

New! SL
machine
lower pric
front of th

New! SLA
stitching m
takes a zig
Like its t

...ew stitches, just by "learning" a knob. Also mending/buttonholing . . . even button sewing! Because it has a gear motor drive (instead of a belt) the SLANT-O-MATIC never slips or stalls. And no other automatic machine can match its smooth, fine straight-stitching.

...ll the features & beauty of ... at home, the name of your...

SINGER SEWING CENTER

Also headquarters for SINGER® Vacuum Cleaners
Listed in your phone book under SINGER SEWING MACHINE CO.
®TM Trademark of the SINGER MANUFACTURING COMPANY

SINGER offers a machine for e

THIS ADVERTISEMENT APPEARS IN THE FOLLOWING MAGAZINES
AND WILL BE SEEN BY **30,624,000** PEOPLE

MAGAZINE	DATE ON SALE	MAGAZINE	DATE ON SALE
SATURDAY EVENING POST	April 29, 1950	WOMAN'S DAY	April 21, 1950
LIFE	April 24, 1950	TRUE STORY	May 4, 1950
LOOK	April 25, 1950	PARENTS	April 25, 1950
LADIES' HOME JOURNAL	April 28, 1950	FARM JOURNAL	May 10, 1950
McCALL'S	April 28, 1950	SUCCESSFUL FARMING	May 11, 1950
GOOD HOUSEKEEPING	April 21, 1950	PROGRESSIVE FARMER	May 11, 1950
EVERYWOMAN'S FAMILY CIRCLE	April 23, 1950		

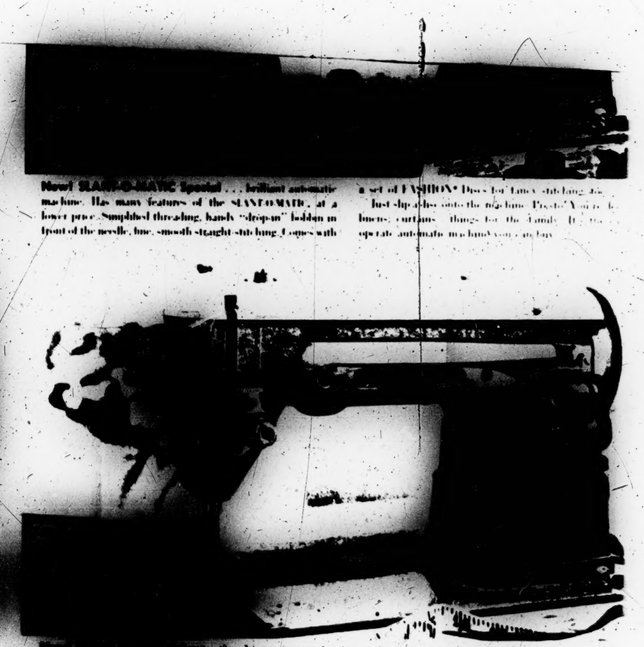
1348

IN UNITED STATES DISTRICT COURT
GOVERNMENT'S EXHIBIT 200

Q-Matic has two talented new sisters!

NGER Slant-Needle that makes your sewing easier and better—

machine. Has many features of the SLANT-O-MATIC, at a lower price. Simplified threading, handy "drop-in" bobbin in front of the needle, fine, smooth straight-stitching. Comes with a set of FASHION-Dises for fancy stitching. Just clip a disc onto the machine. Presto! You're in business. Curtains, things for the family. It's easy to operate automatic machine sewing with this



...ew stitches, just by "learning" a knob. Also mending/buttonholing . . . even button sewing! Because it has a gear motor drive (instead of a belt) the SLANT-O-MATIC never slips or stalls. And no other automatic machine can match its smooth, fine straight-stitching.

...ll the features & beauty of ... at home, the name of your...

SINGER SEWING CENTER

...® Vacuum Cleaners
...ook under SINGER SEWING MACHINE CO.
...ademark of the SINGER MANUFACTURING COMPANY

SINGER offers a machine for every purse and every purpose. See the new SPARTAN® Portable, only

THIS ADVERTISEMENT APPEARS IN THE FOLLOWING MAGAZINES
AND WILL BE SEEN BY **30,624,000** PEOPLE

...ZINE	DATE ON SALE	MAGAZINE	DATE ON SALE
...DAY EVENING POST	April 29, 1950	WOMAN'S DAY	April 21, 1950
...'S HOME JOURNAL	April 28, 1950	TRUE STORY	May 4, 1950
...LL'S	April 28, 1950	PARENTS	April 25, 1950
...OD HOUSEKEEPING	April 21, 1950	FARM JOURNAL	May 10, 1950
...WOMAN'S FAMILY CIRCLE	April 23, 1950	SUCCESSFUL FARMING	May 11, 1950
		PROGRESSIVE FARMER	May 11, 1950

of doubtful value, but that in conjunction with others that we have, they assume greater worth and then only after we have expended a considerable sum to prove their worth.

Perhaps better not to write. I leave it to you.

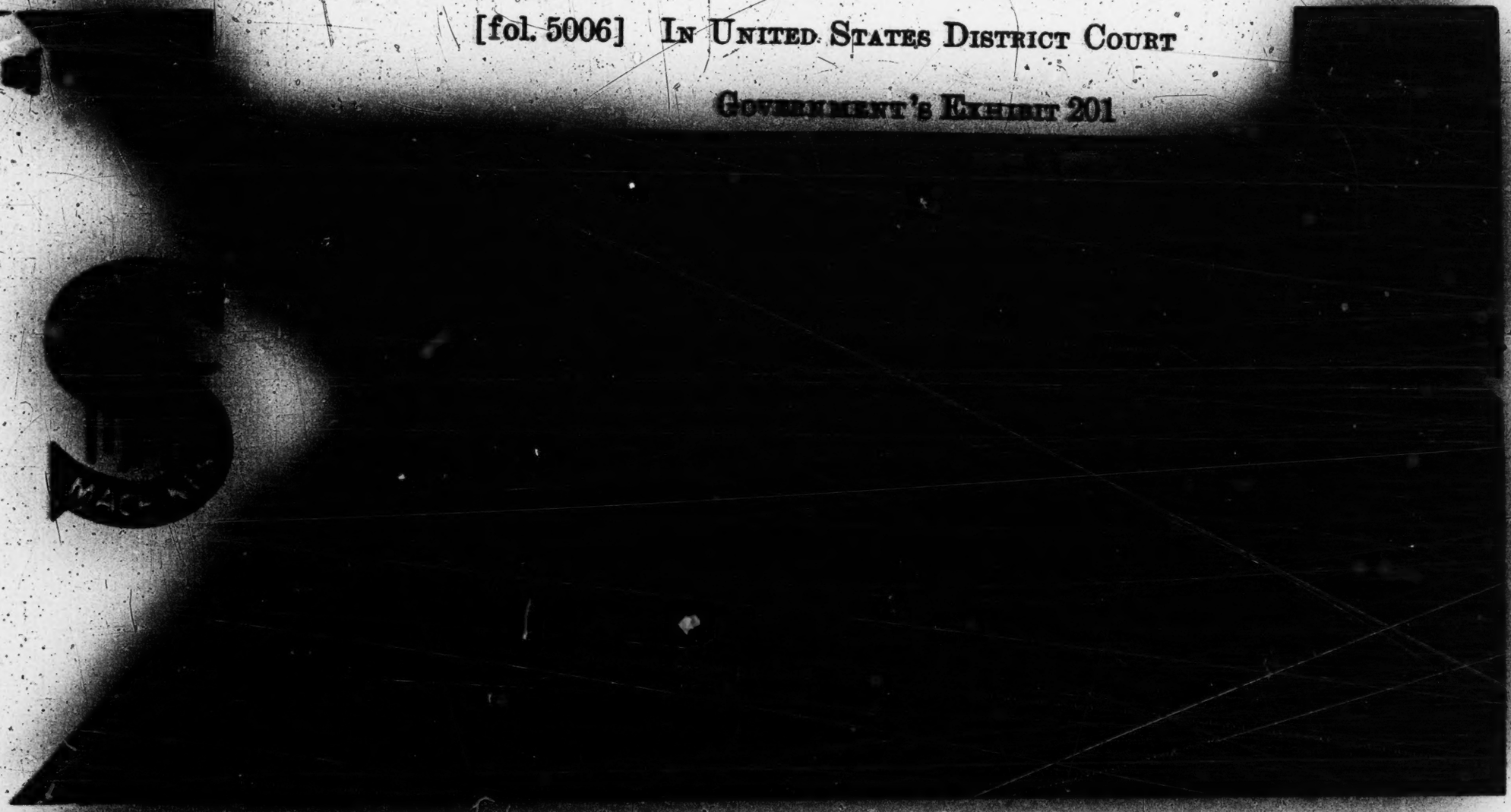
W.

Destroy this.

W.

[fol. 5006] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 201



THE SINGER MANUFACTURING COMPANY

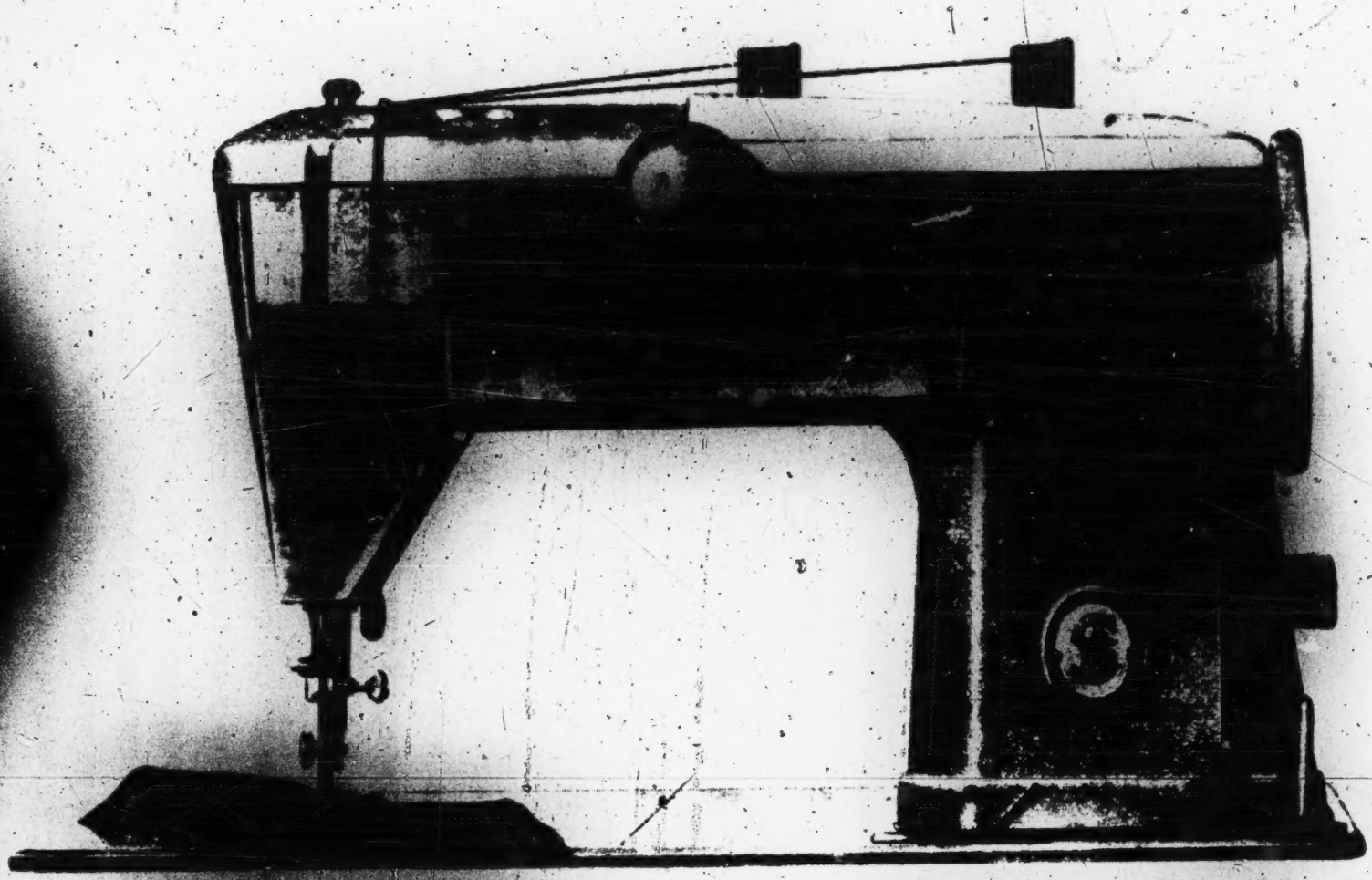
[fol. 5007]

Instructions for using

SINGER*

*SLANT-O-MATIC**

[fol. 5008]



The *SLANT-O-MATIC* –the greatest sewing machine ever built!

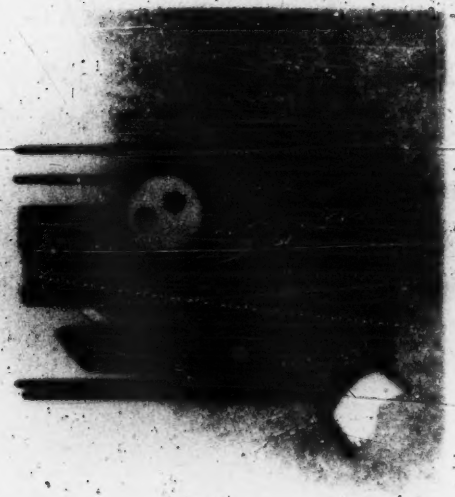
*A Trademark of THE SINGER MANUFACTURING COMPANY

[fol. 5009]

The [redacted] *SLANT-O-MATIC*
the greatest sewing machine ever built . . .

From the moment you see the new *SLANT-O-MATIC*, you'll know it's excitingly different. You'll marvel at its automatic sewing . . . its almost unbelievable ease of operation . . . the remarkable services it performs. You'll delight in its easy, beautiful stitching. The only automatic zigzag machine for home use made entirely in America, it surpasses all other machines in both straight and fancy stitching.

● World's *first* automatic with a sheer needle and gear drive. Sewing is easier, sewing smoother ever. No slipping or stalling.



● World's *first* automatic with double easy threading. Slim built-in threading chart, handy "drop-in" bobbin in *front* of needle!

● World's *first* automatic with a built-in speed-control stitch chart, that lets you "tune" the hands for whatever fancy stitch you want!

Add to these major developments in sewing machine design the following ADVANCED features, and you have a machine far ahead in design, unequalled in performance.

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[Col. 2020]

- [illegible] TYPE multi-purpose calibrated throat plate, lever operated, simplifies darning.
- [illegible] base plate swings open for easy darning.
- [illegible] of stitch length control guided with stitching.
- [illegible] Straight Stitching.
- [illegible] Instant on sewing area.
- NEW NEEDLE CLAMP holds one or two regular needles—same or different sizes for making twin needle stitching.
- ALL MECHANISM completely enclosed.
- NEW ADJUSTABLE HINGED zipper and cording foot.
- NEW SPECIAL PURPOSE FOOT.
- NEW SEAM GUIDE.

TO GET THE MOST ENJOYMENT FROM YOUR MACHINE

Take advantage of the free sewing lessons to which you are entitled! Skilled, factory-trained teachers will give you personal guidance and aid you in learning the fundamentals of home sewing.

[fols. 5011-5132]

SINGER SERVICE

Wherever you go you will find expert, dependable SINGER* Service close at hand. SINGER is interested in helping you keep your SINGER Sewing Machine in top running condition. That is why you should always call your SINGER SEWING CENTER if your machine ever requires adjustment or repair. Only from your SINGER SEWING CENTER can you obtain the services of a trained SINGER repair man and warranted SINGER* parts.

EVERYTHING FOR THE WOMAN WHO SEWS

The answer to your sewing needs is at your SINGER SEWING CENTER. There you will find a wide choice of sewing aids, notions, sewing instructions and services. Look for the famous red "S" and SINGER trademarks on your SINGER SEWING CENTER and the ever ready SINGER Service Car. See phone book under SINGER SEWING MACHINE CO. for address nearest you.

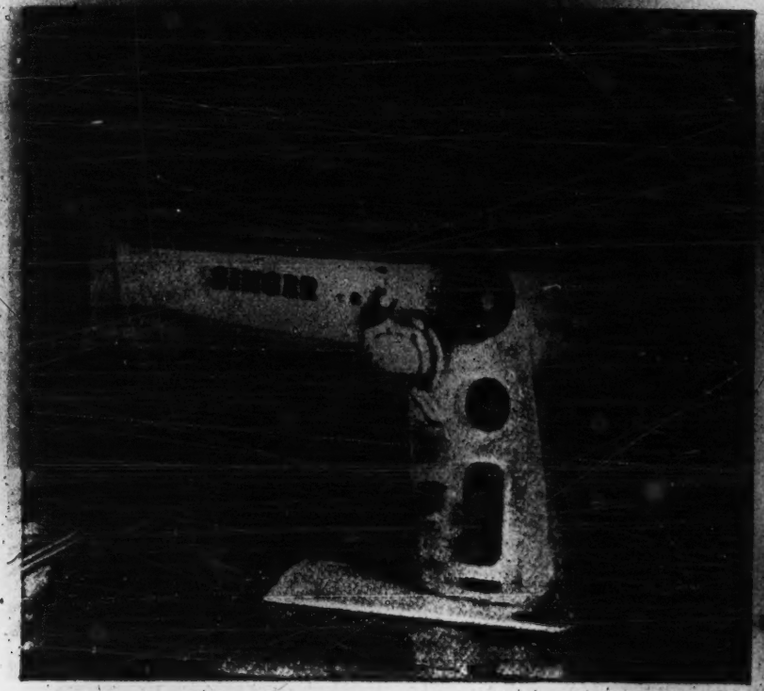
1349

GOVERNMENT'S EXHIBIT 203

VOGUE PATTERN BOOK, JUNE - JULY 1957

Never before—such ease! such beauty! such a choice!

4 Fabulous SINGER Sewing Machines



1. New Swing-Needle SINGER Automatic —with Finger-Tip Control

Does hundreds of stitches at the flick of a lever! Want to switch from straight stitching to scallops—zigzags—embroidery—monograms—darning—overcasting? Simply flick one or more of these little levers . . . and you're off! You can do all the popular stitches or create your own combinations—*by the hundreds*—with this simple SINGER Automatic!

With this amazing new SINGER Automatic you can do more kinds of decorative stitching—*more simply*—than with any other machine.

That's because it has a special Finger-Tip Control that lets you pick out the stitch you want—*and start doing it*—at the flick of a lever. Puts literally hundreds of fashion touches at your finger tips!

It even makes straight stitching smoother, surer than any other automatic. Has twin-needle for two-color sewing. New wide-range speed control. Every kind of de luxe feature! In new "designer" cabinets or full-size portable case.

Prices on SINGER* Sewing Machines start at $99.90

Easy terms—liberal trade-in allowances

Prices slightly higher in some areas.

SINGER SEWING CENTERS

*A Trademark of THE SINGER MANUFACTURING COMPANY

See phone book under SINGER SEWING MACHINE CO. for address nearest you.

2. Exclusive Slant-Needle* SINGER—*only* machine with a needle that slants toward you. Lets you see more clearly, feed fabric more easily, sit more restfully. In oyster-white and beige, beige, or black. Comes with Automatic Zigzagger attachment for decorative stitching.

3. Standard SINGER Automatic—gives you the joys of zigzag Swing-Needle* sewing at an "easy" price. Does all kinds of fancy stitches —*automatically*. Mends, darns, hems, too. Sews faithfully—as only a SINGER can. Smart beige or black. In newest cabinets or portable case.

4. New extra-value SINGER Portable—an unbeatable buy! This round-bobbin beauty sews forward and back. Has sewing light, simplified threading, handsome case. One of many fine Straight-Needle models. Choose the new SINGER that fits *your* needs—*your* purse!

1350

[fol. 5134] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 205

Every Independent

ADVERTISED IN LIFE

100% FULLY AUTOMATIC
ZIG-ZAG AT A NEW LOW PRICE

SENSATIONAL SELECT-O-MATIC

THE PERFECT MACHINE TO ROUND OUT YOUR PRODUCT LINE!

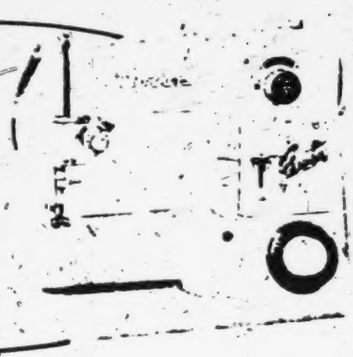
Only **BROTHER** can offer you a 100% fully automatic zig-zag at such a unbeatable price . . . a price everyone can afford . . . a price that gives you a fantastic margin of profit and gives your customers top quality. Here's a precision-perfect sewing machine with every famous seal . . . fully guaranteed for a lifetime of trouble-free performance. This is THE machine that rounds out your line . . . it's so value-packed with Brother's exclusive, *built-in* cams and other unbeatable features of the future. And now . . . prices are better better than ever for you to make more sales . . . more profits from the world's most fabulous budget automatic sewing machine!

With Brother's complete line you have a machine to fit *every* budget AND you're backed by Brother's famous merchandising program and the world renowned Brother name . . . your guarantee of *quality . . . beauty . . . precision performance!*

WRITE OR PHONE YOUR NEAREST DISTRIBUTOR

SELECT-O-MATIC
. . . PACESETTER
. . . THE PERFECT PAIR FOR PROFITS!

Make sure you've placed your orders for the Pacesetter . . . the only machine in the world with the unbelievable computer brain that *thinks and sews* without cams or buttons. Just set the dial and watch . . . and watch it sell itself!

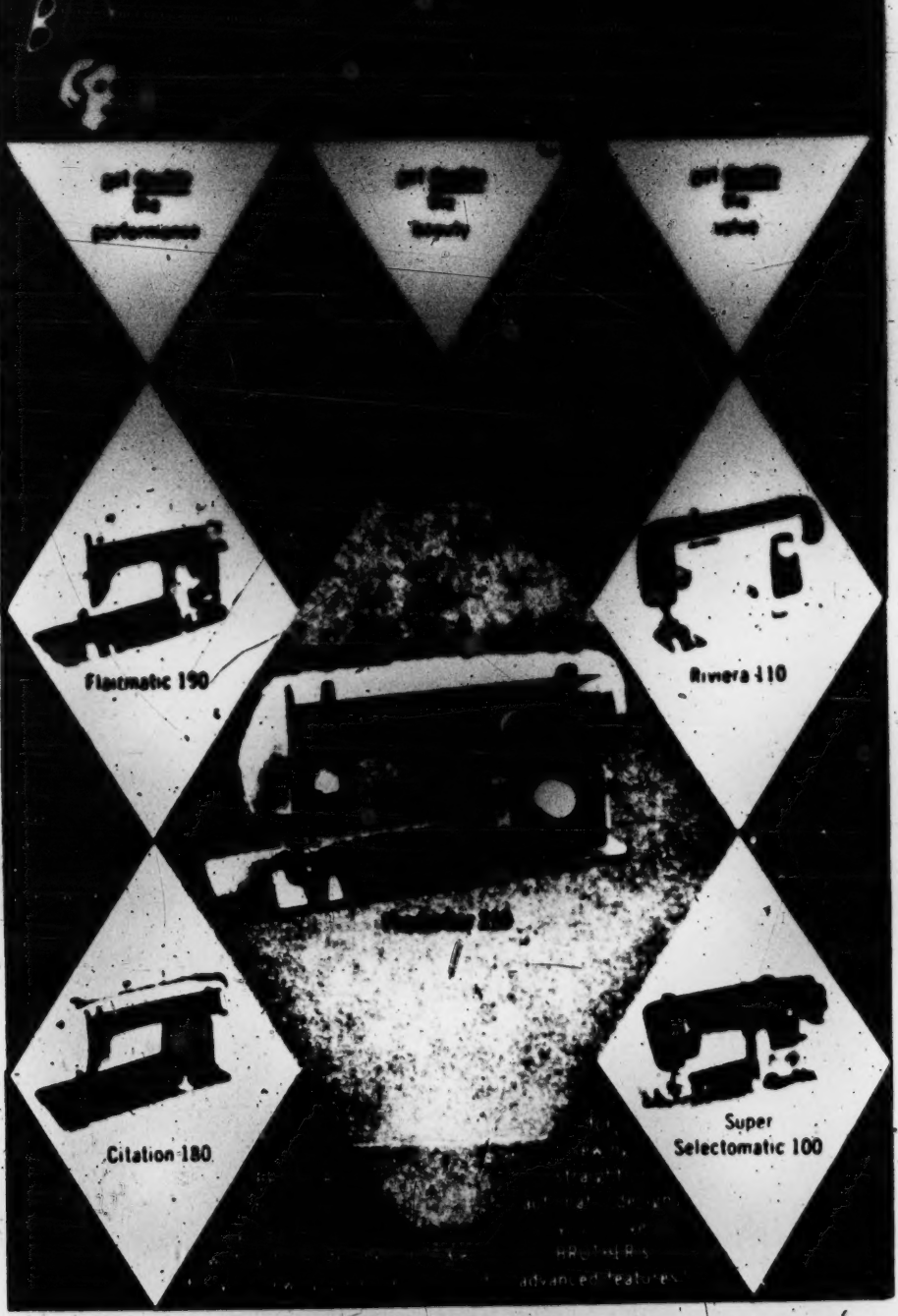


BROTHER

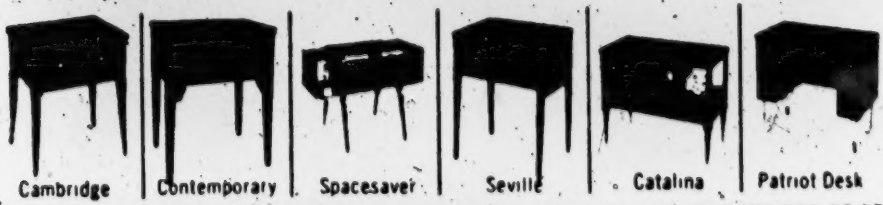
122 West 27th St., New York 1, N. Y.

BROTHER INTERNATIONAL CORP. OF CA
1058 S. Flower St., Los Angeles, Cal.

May 1956



buy **any** of these newest BROTHER cabinets... you'll get **double** your money's worth. Edward J. Wormley designed them all!



for free literature on newest BROTHER sewing machines, cabinets, and knitters write "literature," Dept. P 8 Brother International, 122 W. 27th St., N.Y., N.Y.

Companion

BROTHER® *Sewing Machines*

NEW YORK, 122 W. 27th St • PHILADELPHIA, 49th & Aspen Sts
LOS ANGELES, 1058 S. Flower St. • NEW ORLEANS, 2001 Gentilly Blvd

BROTHER-KNIT the amazing new home appliance with which anyone can make beautiful hand-knits in minutes—even if you've never knitted before! It's 100% automatic . . . so economical . . . and so much fun.

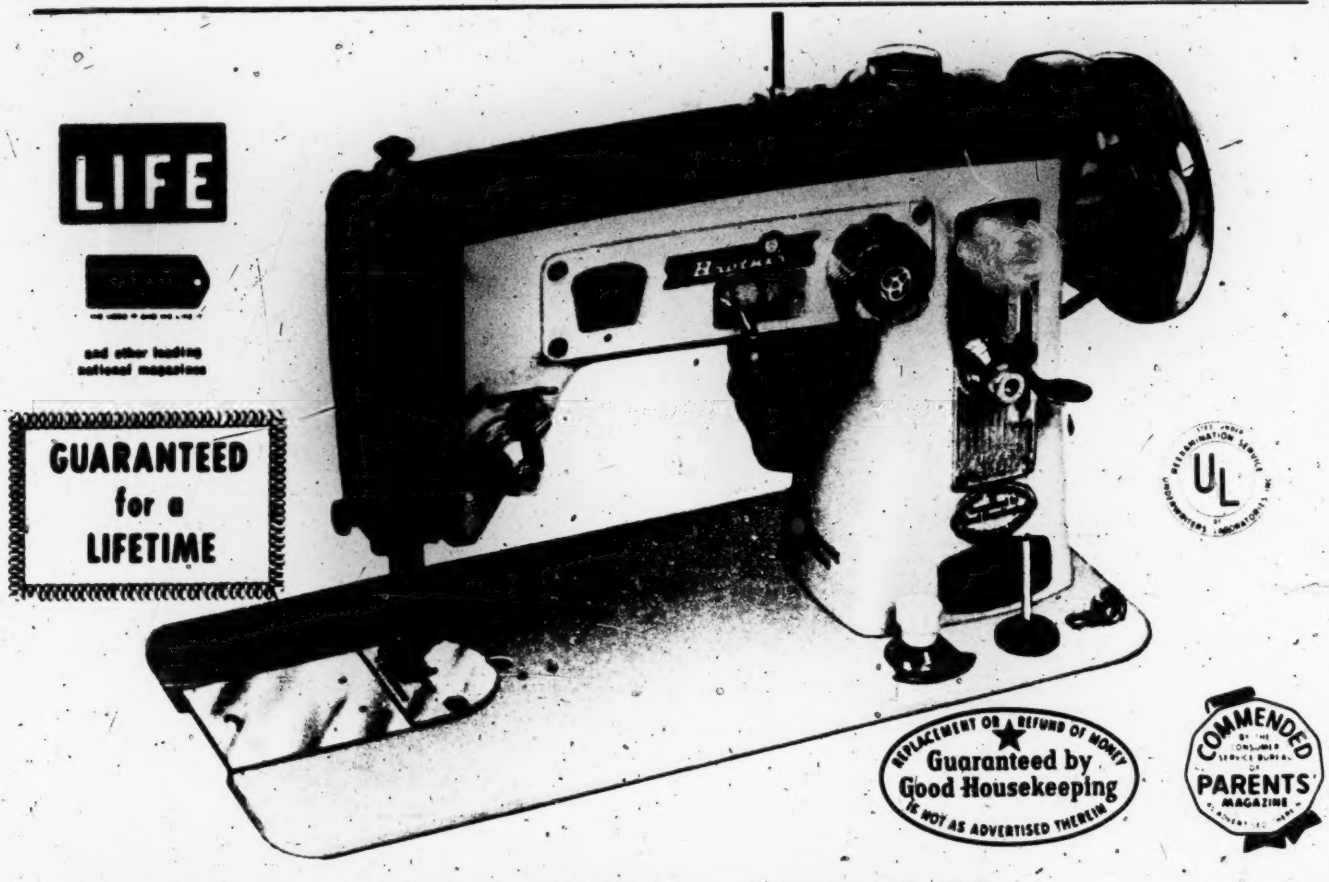
Guaranteed by Good Housekeeping

PARENTS'

USM TESTED

GOVERNMENT'S EXHIBIT 205D

World Famous BROTHER Sewing Machines



BROTHER SELECT-O-MATIC*—MODEL 90

THE WORLD'S FIRST & ONLY 100% COMPLETE BUILT-IN CAM AUTOMATIC ZIG-ZAG WITH THE SELECT-O-MATIC DIAL!

These amazing features are Exclusive with Brother

★ Stitch-width Indicator — shows the width of the stitch on the "dial window."

★ Needle Control Lever — instantly changes needle position to achieve numerous design variations.

★ Automatic Control — permits instant changeover from straight sewing to full automatic zig-zag operation. without attachments.

★ Automatic Selector — instantly changes stitch pattern to the one of your choice.

★ Stitch Regulator — controls forward & reverse sewing and regulates stitch length as desired.

★ Automatic Stitch Indicator — gives perfect control of pattern designs in decorative stitches.

★ Available in two-tone streamline design.

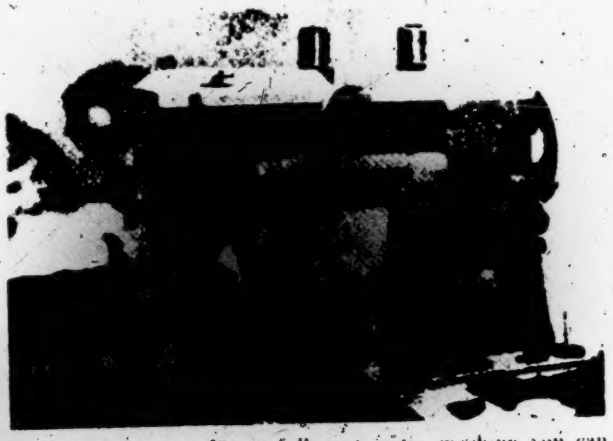
BROTHER World's Finest Precision-built SEWING MACHINES

1353

New! SINGER Slant-Needle Series

Now there are 3 machines with the exclusive **SINGER** Slant-Needle that makes all sewing easier and better. All three made in America by American craftsmen.

SINGER exclusive SLANT NEEDLE machines come in cabinet or lightweight portable models.



The Great SLANT-O-MATIC*

Finest fully automatic machine you can own. Smoothest straight stitching, decorative stitching, mending, darning, button sewing—just by "turning" a knob.

New! SLANT-O-MATIC Special

Brilliant automatic machine. Has many SLANT-O-MATIC features at a lower price. Comes with a set of FASHION* Discs you slip onto the machine for fancy stitching.

SINGER offers a sewing machine for every purse and purpose. See the new SPARTAN* Portable . . . priced at only $69.50

SINGER SEWING CENTERS

Also headquarters for SINGER* Vacuum Cleaners

Listed in your phone book under SINGER MANUFACTURING CO.

*A Trademark of THE SINGER MANUFACTURING CO.

Singer Sewing Machine Company
149 Broadway, New York 6, N. Y.

Please send me additional information on the new Slant-Needle Sewing Machines.

Name_____

Street_____

City_____ County_____ State_____

New! SLANT-NEEDLE Deluxe

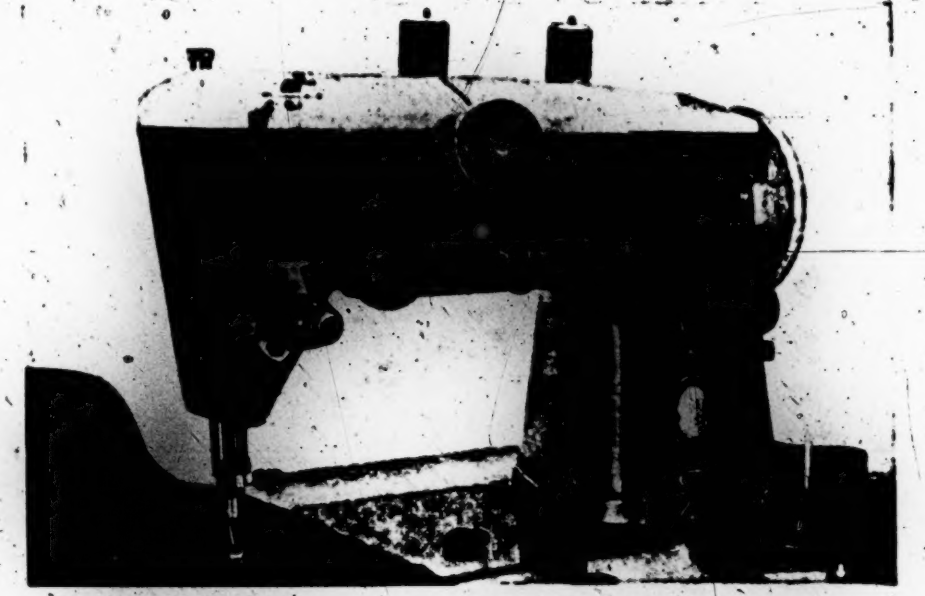
Ultimate in straight-stitching machines. And like its sister machines, has [illegible] threading chart, front drop-in bobbin, and gear motor drive . . . never [illegible]

EXHIBIT 1
U.S. Dist. Court
S.D. of N.Y.
GOVERNMENT 208

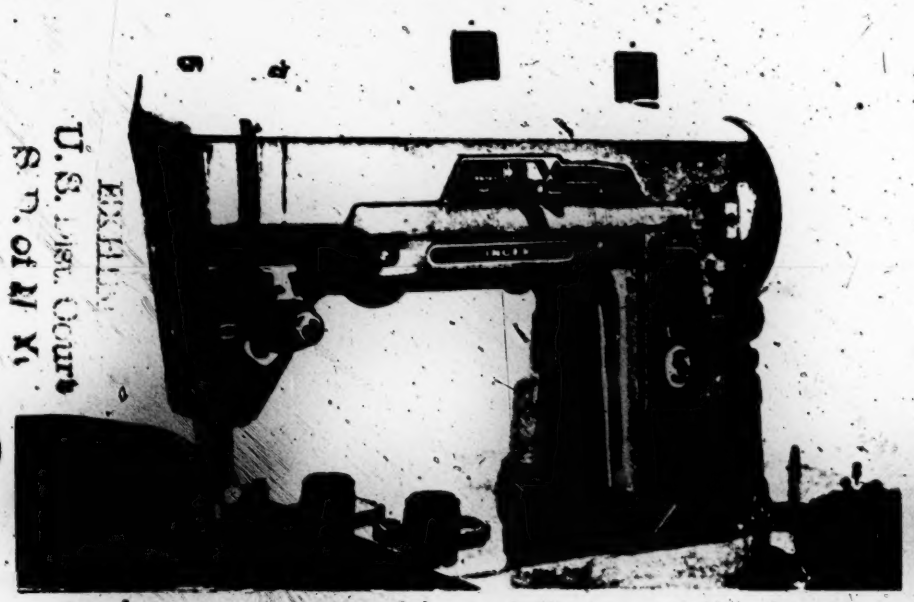
GOVERNMENT'S EXHIBIT 208B

...and for my big gift

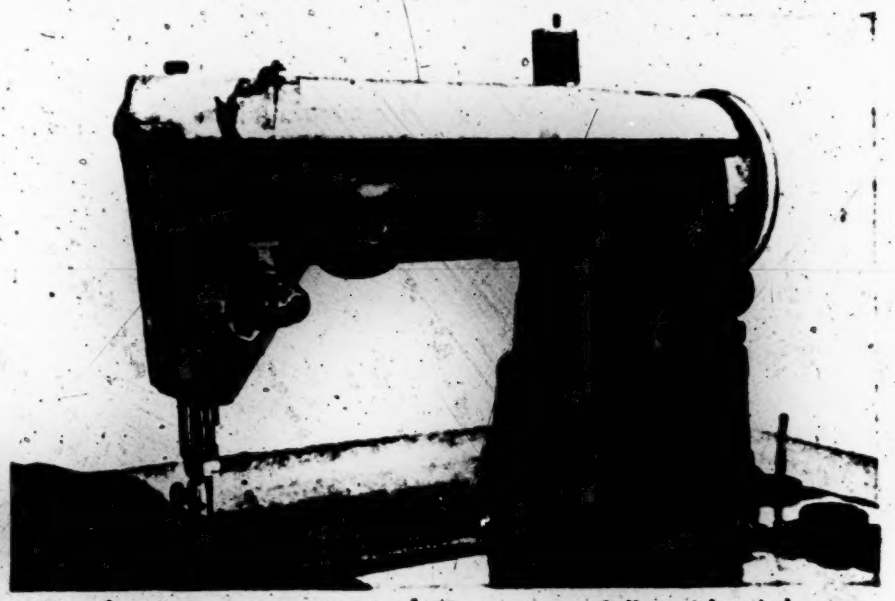
More women will wish for—and get—a SINGER this Christmas than any other machine and here's why...



Famous SLANT-O-MATIC®. Here is the most talented machine you can buy. Just by "tuning" a knob you can create thousands of fancy stitches. Do practical every-day sewing. Also sew buttons, buttonholes, do darning—even blind stitching. Cabinet, portable styles. Made in America.



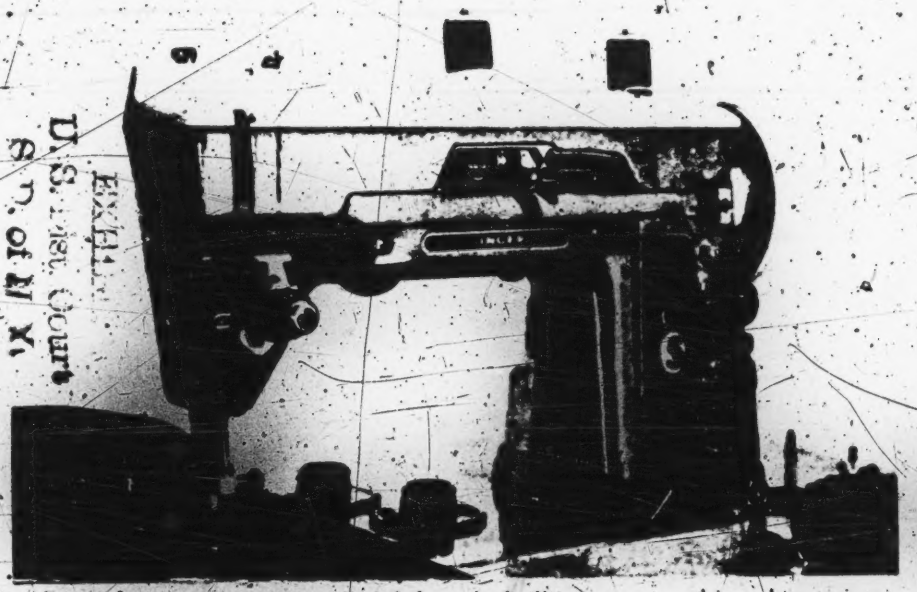
New! SLANT-O-MATIC Special . . . a brilliant new machine that gives you so many of the superb features of the SLANT-O-MATIC at a lower price. And it comes with a set of FASHION® Discs you slip on the machine for fancy stitching. Cabinet, portable styles. Made in America.



New! SLANT-NEEDLE Deluxe! This greatest-of-all straight-stitch machines has foolproof threading; exclusive slant-needle; front "drop-in" bobbin. Never slips, or stalls. And a zigzag attachment for fancy stitching is included. Cabinet, portable styles. Made in America.

U.S. DIST. COURT
S. D. of N.Y.
FILED

EXHIBIT
U.S. Dist. Court
S.D. of N.Y.
204 B



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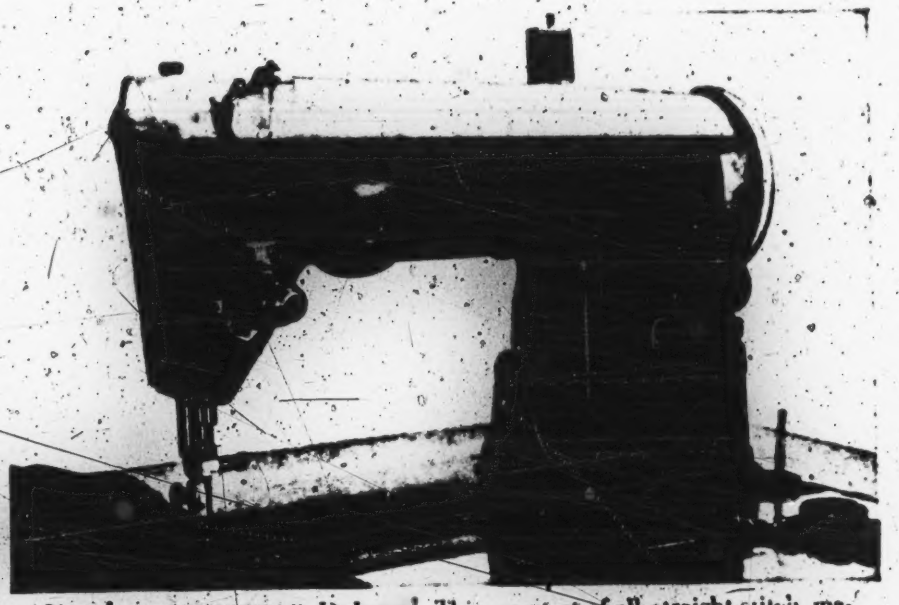

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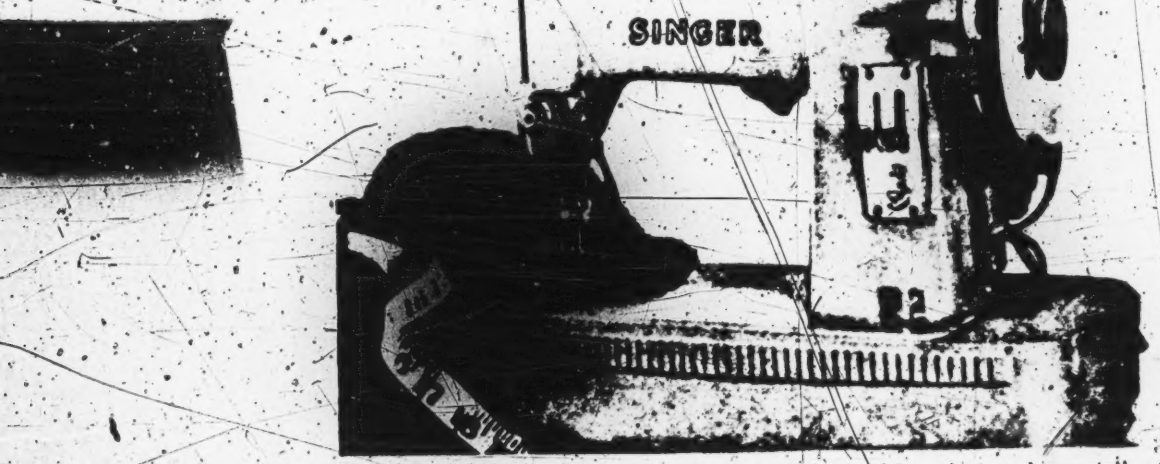
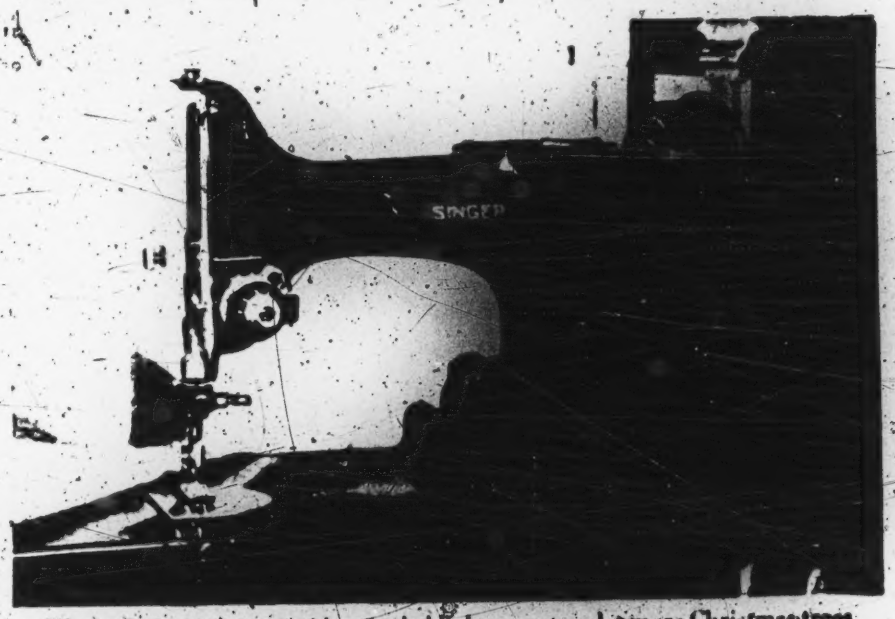


Young-Budget SINGER® . . . a sleek new machine designed specially for young homemakers! Easy to run—even most beginners make curtains, bedspreads and things for the family right off. And, young husbands are naturally drawn to the tiny price. Cabinet, portable styles. Made in Great Britain.



The FEATHERWEIGHT® has probably been put under more Christmas trees than any other electric portable in the world. And no wonder. Weighs only 11 pounds, yet does the job of a full-sized SINGER® Sewing Machine. Sews perfectly on every fabric. Compact for storage, too. Made in America.

And you can tell Santa . . . SINGER low prices start at $59.50 for the SPARTAN® model.

SINGER SEWING CENTERS

Also headquarters for SINGER® Vacuum Cleaners
Listed in your phone book under SINGER SEWING MACHINE CO.
®A Trademark of the SINGER MANUFACTURING CO.

Ad No. 635
Ladies' Home Journal—December, 1959
McCall's—December, 1959
Progressive Farmer—December, 1959
Saturday Evening Post—December 5, 1959
Life—December 7, 1959
Look—December 8, 1959

[fol. 5146] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 2080

As Recorded 3/19/59

Singer Slant Needle Family
Announcement—"Rose" Film #2230-120
(Revision of Film #2197-120)

Video	Audio
A Single Rose Falls From Top of Frame . . . to Center Frame Left. This is Quickly Followed by Two More.	(Music Under)
Slant-O-Matic—with Super: *Slant-O-Matic* Dissolves onto First Rose. Slant-O-Matic Special—with Super: *Slant-O-Matic Special*—Dissolves onto Second Rose. Slant-Needle Straight Stitching Machine—with Super: Slant-Needle *Deluxe*— Dissolves onto Third Rose. Hold Three Machines.	*Announcer:* (Voice Over) Now there are *three!* *Woman:* (Voice Over) The Slant-O-Matic! The new Slant-O-Matic Special! The new slant-Needle Deluxe!
Machines Turn . . . so that Stitching End Is Toward Camera. Camera Moves in for CU Needle of Slant-O-Matic, Side View. Dissolve Front Elevation of Slant-O-Matic onto Side View . . . Dissolve Out Side View. With Super: *Slant-O-Matic.*	*Announcer:* (Over) Yes—now there are *three! Three* brilliant sewing machines in the new Singer Slant Needle Family! Now you can have Singer exclusive Slant-Needle action—— Singer superb Slant-Needle performance—for every kind of sewing! *Woman:* (Over) If you've been look at sewing machines—you've certainly seen the Slant-O-Matic—with features you've never seen in a sewing machine before!
(DS. To)	
Hand Selecting. Stitch from Stitch Chart . . . and Setting Dial.	Just set the Slant-O-Matic dial—and you can sew beautiful decorative stitches.
[fol. 5147] (DS. To)	
MCU Woman Sewing on Slant-O-Matic	Practical sewing is just as easy. If you want the world's finest sewing machine this is it! The incomparable Slant-O-Matic!
(DS. To)	
Rose—and to Beauty Shot Slant-O-Matic Special with Super: *Slant-O-Matic Special.*	And now Singer brings you many of these same remarkable features at a lower price—in the new *Slant-O-Matic Special!*
(DS. To)	
CU Needle Doing Straight Stitching CU Woman's Hand Holding Zigzag Fashion Disc. She Slips It into Machine.	The Slant-O-Matic Special—that gives you—smooth, trouble-free straight-stitching—and—a wide variety of beautiful decorative stitches, too. These are Fashion Discs . . . that slip into your machine . . .
(DS. To)	
CU Needle Sewing Decorative Stitch Pattern.	to let you do lovely decorative patterns like these——
(DS. To)	
CU Needle Overcasting Seam.	and handsome finishing stitches, too——

Video	Audio
(DS. To)	
CU Needle Sewing Button-Holes.	for overcasting seams, making button-holes.
(DS. To)	
Rose—and to CU Beauty Shot Slant-Needle Straight Stitching Machine—with Super: *Slant-Needle* Deluxe!	And here's the brand new Slant-Needle Deluxe—that gives you famous Singer straight stitching—the finest in the world!
(DS. To)	
Needle Doing Straight Stitching.	
(Cut To)	
CU Hand Opening Threading Chart.	Like the Slant-O-Matic . . . like the Slant-O-Matic Special the new Slant Needle Deluxe has a new built-in threading chart——
(Cut To)	
Woman's Hand Dropping in Bobbin	—a new drop-in bobbin in *front* of the needle——
[fol. 5148] (DS. To)	
MCU Woman Sewing—Straight Stitching.	—and a new gear motor drive for better control, smoother running performance.
(DS. To)	
Three Machines . . . with Roses . . . as in Opening but *No Titles Super:* Made in America by Singer.	*Announcer:* (Over) Yes, now there are three! Three brilliant new Slant-Needle Sewing Machines made in America—by American craftsmen—made for you by Singer! See them! Try them!—at your Singer Sewing Center now!
Bring Up Name *Singer*.	

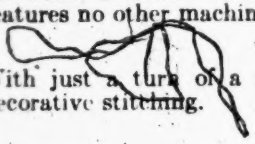
[fol. 5149] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 208D

As Recorded 10/9/59

Singer Christmas Catalogue B U.S.
Time: Two Minutes Film #2224-120

Video	Audio
There Appears—a Snowflake	*Music:* The Merest Little Tingling Phrase—Which Suspends With a Little Sort of Snow flake Sting
	Voice Over: Sparkling——
Now Bring in a Second Snowflake	*Music:* As Above
	Voice Over: Brilliant——
And—a Third	*Music:* As Above
	Voice Over: Beautiful!——
Now . . Let's Have a Little Snowstorm Around, Behind, Including the Three Flakes. All is Quickly Tiny Flakes. . . .	Music: A Tingling Swirl——
	Voice Over: Choose one for *Christmas* now!
. . . . Which Descend on a Stylized Little Singer Sewing Center, Seen in a Snowy World Slightly From Above	*Music:* A Bit More Swirl——
	Voice Over: Yes . . . at your Singer Sewing Center—choose *your* Singer for Christmas *now!* (Music Under—Continue Throughout)
Now—DS. to Live Action: CU Young Budget Singer in Room Setting, Th. gh We Don't See That Yet. Just a Warm Nice CU of Machine—With Some Material Under It's Needle Super: Young Budget Singer	*Voice Over:* This sleek Singer, for instance——
(DS. To)	—the Young Budget machine. It has a trim new look—a new soft-green color——
Now—Behind Machine . . Include a Young Mother and Her Daughter Hanging Curtains. Keep Machine in Foreground.	(XX) and it's built for the sewing needs of young families—priced for young pocket-books, too!
[fol. 5150] (DS. To)	
CU Machine and Case—Can We Somehow Keep it to Above Shot?	Here it is in portable style—with its matching green case——
Super: $12 *Down*	and with the Singer Budget Plan—just twelve dollars delivers it to your home.
(Wipe To)	
CU Featherweight Super: Featherweight Replace Super: *11 Pounds*	And here's another bright Singer portable—the famous Featherweight. It weighs a light eleven pounds——
(DS. To)	
CU Needle Stitching Heavy Snowsuit Fabric	yet it can stitch up a snowsuit (XX) Not in "A" Version
(DS. To)	
CU Needle Stitching on Tape in Snowflake Design	as easily as it works magic like this!

Video	Audio
(Wipe To)	
MCU Slant-O-Matic—Over Woman's Shoulder	And this is the most brilliant machine of them all——
Super: Slant-O-Matic	the Slant-O-Matic—with all of its fabulous features no other machine can match!
(DS. To)	
CU Woman's Hand Picking Stitch and Dialing	 With just a turn of a dial—it lets you do decorative stitching.
(DS. To)	
CU Needle Doing Design—Another Snowflake—or Perhaps a Flower	Thousands of beautiful stitches are right at your fingertips.
(DS. To)	
CU Needle Straight Stitching	With just the turn of a dial you switch to smooth straight stitching—the smoothest in the world!
(DS. To)	
CU Beauty Shot Machine	If you'd like the finest machine ever made—it's the Slant-O-Matic. And look—the Slant-
[fol. 5151]	
DS. Through to Two Machines—the Slant-O-Matic Special—and the Slant-Needle Deluxe Super Names on Each.	O-Matic has two talented new *sister* machines——
	The new Slant-O-Matic Special—and the new Slant-Needle Deluxe. Both give you many of the Slant-O-Matic features—at a lower price.
Take Out Supers—and Super in Sync With Audio:	No machines can match them—because they're made in America—by American craftsmen—made for you by *Singer!* See them——
And *Made in America* (Snowflake Effect)	
And by Singer (Snowflake Effect)	
DS. Out Machines and Words——	(Music Begins to Come up a Bit)
And Swirl Flakes Again, Adding Others	See all the other brilliant new sewing machines, too——
And Descend on the Sewing Center as in Opening	at your Singer Sewing Center now!
Gracefully, But Pointedly, a Single Snowflake Now Comes in—Wiping Out Center.	Music Makes a Pointed But Graceful Little Point
	The Voice Over Returns:
	And by the way—prices at your Singer Sewing Center start at just $59.50—for the Spartan Portable!
Poised for Something—Which is *$59.50*	
A Significant Sparkle from the Snowflake	And the Music Finishes Brightly

[fol. 5152] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 208E

Re-Recorded
5/20/59

Singer Slant-Needle Family
Announcement Film #2197-120

Video	Audio
A Single Rose Falls From Top of Fame . . to Center Frame Left. This is Quickly followed By Two More	(Music Under)
Slant-o-Matic—With Super: *Slant-o-Matic* Dissolves Onto First Rose Slant-o-Matic Special—With Super: *Slant-o-Matic Special*—Dissolves Onto Second Rose Slant-Needle Straight Stitching Machine—With Super: Slant-Needle Deluxe—— Dissolves Onto Third Rose Hold Three Machines	Announcer: (Voice Over) Now there are *three!* *Woman:* (Voice Over) The Slant-o-Matic! The new Slant-O-Matic Special! The new Slant-Needle Deluxe!
Machines Turn . . So That Stitching End Is Toward Camera. Camera Moves in for CU Needle of Slant-O-Matic, Side View Dissolve Front Elevation of Slant-O-Matic onto Side View . . Dissolve Outside View. With Super: *Slant-O-Matic*	*Announcer:* (Over) Yes—now there are *three! Three* brilliant sewing machines in the new Singer Slant Needle Family! Now you can have Singer exclusive Slant-Needle action—— Singer superb Slant-Needle performance—for every kind of sewing! *Woman:* (Over) If you've been looking at sewing machines—you've certainly seen the Slant-O-Matic—with features you've never seen in a sewing machine before!
[fol. 5153] (DS. To) Hand Selecting Stitch From Stitch Chart . . . CU—Main Setting Dial CU Fancy Stitch on Organdy CU—Straight Stitching on Seam Med. CU—Continue Fancy Stitch on Organdy:	With just the turn of a dial it lets you do thousands of decorative stitches! And it does your everyday practical work too. If you want the world's finest fully-automatic . . . sewing machine this is it! The incomparable Slant-O-Matic!
(DS. To) Rose—and to Beauty Shot Slant-O-Matic Special With Super: *Slant-O-Matic Special*	And now Singer brings you many of these same remarkable features at a lower price—in the new *Slant-O-Matic Special!*
(DS. To) CU Needle Doing Straight Stitching	The Slant-O-Matic Special—an automatic machine that gives you—smooth, trouble-free straight-stitching!——
CU Woman's Hand Holding Zigzag Fashion Disc. She Slips It Into Machine	and—a wide variety of beautiful decorative stitches, too. These are Fashion Discs . . . that slip into your machine . . .
(DS. To) CU Needle Sewing Decorative Stitch Pattern.	to let you do lovely decorative patterns like these——
(DS. To) CU Needle Overcasting Seam.	and handsome finishing stitches, too—

Video	Audio
(DS. To)	
CU Needle Sewing Button-Holes	for overcasting seams, making buttonholes.
(DS. To)	
Rose—and to CU Beauty Shot Slant-Needle Straight Stitching Machine—With Super: *Slant-Needle* Deluxe!	And here's the brand new Slant-Needle Deluxe—that gives you famous Singer straight stitching—the finest in the world!
(DS. To)	
Needle Doing Straight Stitching	
[fol. 5154] (Cut To)	
CU Hand Opening Threading Chart	Like the Slant-O-Matic . . . like the Slant-O-Matic Special the new Slant Needle Deluxe has a new built-in threading chart——
(Cut To)	
Woman's Hand Dropping In Bobbin	—a new drop-in bobbin in *front* of the needle
(DS. To)	
MCU Woman Sewing—Straight Stitching. (Jessie Clark—On Camera) from 2164	—and a new gear motor drive for better control, smoother running performance.
(DS. To)	
Three Machines . . With Roses . . As in Opening But *No Titles Super:* Made in America By Singer.	*Announcer:* (Over) Yes, now there are three! Three brilliant new Slant-Needle Sewing Machines made in America—by American Craftsmen—made for you by Singer!
Bring Up Name *Singer.*	

[fol. 5155] IN UNITED STATES DISTRICT COURT

GOVERNMENT'S EXHIBIT 208F

As Recorded Revise
5/7/58

Singer Slant-Needle Family
Announcement Film #2168-120

Video	Audio
A Single Rose Falls From Top of Frame . . . to Center Frame Left. This is Quickly Followed by Two More.	(Music Under)
Slant-O-Matic—with Super: *Slant-O-Matic* Dissolves Onto First Rose	Announcer: (Voice Over) Now there are *three!* *Woman:* (Voice Over) The Slant-O-Matic!
Slant-O-Matic Special—With Super: *Slant-O-Matic Special*— Dissolves Onto Second Rose	The new Slant-O-Matic Special!
Slant-Needle Straight Stitching Machine—with Super: Slant-Needle *Deluxe*— Dissolves Onto Third Rose Hold Three Machines	The new Slant-Needle Deluxe!
Machines Turn . . So That Stitching End Is Toward Camera. Camera Moves in for CU Needle of Slant-O-Matic, Side View Dissolve Front Elevation of Slant-O-Matic onto Side View . . Dissolve Out Side View. With Super: *Slant-O-Matic*	*Announcer:* (Over) Yes now there are *three! Three* brilliant sewing machines in the new Singer Slant Needle Family! Now you can have Singer exclusive Slant-Needle action— Singer superb Slant-Needle performance—for every kind of sewing! *Woman:* (Over) If you've been looking at sewing machines—you've certainly seen the Slant-O-Matic—with features you've never seen in a sewing machine before!
[fol. 5156] (DS. To)	
Hand Selecting Stitch from Stitch Chart . . . and Setting Dial	It lets you do thousands of decorative stitches—with just the turn of a dial!
(DS. To)	
MCU Woman Sewing on Slant-O-Matic	Does your everyday practical work too. If you want the world's finest fully-automatic . . . this is it! The incomparable Slant-O-Matic!
(DS. To)	
Rose—and to Beauty Shot Slant-O-Matic Special with Super: *Slant-O-Matic Special*	And now Singer brings you many of these same remarkable features at a lower price—in the new *Slant-O-Matic Special!*
(DS. To)	
CU. Needle Doing Straight Stitching	The Slant-O-Matic Special an automatic machine that gives you—smooth, trouble-free straight-stitching!
CU Woman's Hand Holding Zigzag Fashion Disc. She Slips It Into Machine.	and a wide variety of beautiful decorative stitches, too. These are Fashion Discs . . . that slip into your machine . . . .
(DS. To)	
CU Needle Sewing Decorative Stitch Pattern.	to let you do lovely decorative patterns like these—
(DS. To)	
CU Needle Overcasting Seam.	and handsome finishing stitches, too—

Video	Audio
(DS. To)	
CU Needle Sewing Button-Holes	for overcasting seams, making buttonholes
(DS. To)	
Rose—and to CU Beauty Shot Slant-Needle Straight Stitching Machine— with Super: *Slant-Needle* Deluxe!	And here's the brand new Slant-Needle Deluxe—that gives you famous Singer straight stitching—the finest in the world!
(DS. To)	
Needle Doing Stright Stitching.	
[fols. 5157-5162] (Cut To)	
CU Hand Opening Threading Chart.	Like the Slant-O-Matic . . . like the Slant-O-Matic Special the new Slant Needle Deluxe has a new built-in threading chart——
(Cut To)	
Woman's Hand Dropping In Bobbin.	—a new drop-in bobbin in *front* of the needle—
(DS. To)	
MCU Woman Sewing—Straight Stitching.	—and a new gear motor drive for better control, smoother running performance.
(DS. To)	
Three Machines . . With Roses . . As in Opening But *No Titles Super:* Made in America by Singer.	*Announcer:* (Over) Yes, now there are three! Three brilliant new Slant-Needle Sewing Machines made in America—by American Craftsmen—made for you by Singer! See them! Try them!—at your Singer Sewing Center now!
Bring Up Name *Singer*.	

[fol. 5163] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 1

March 25, 1954.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Selective Pattern Cam Control Means for Use in Conjunction with a Zigzag Machine—Mr. Pfefferkorn.

We acknowledge the receipt of your letter of March 19, 1954, MLW: V3, together with its various enclosures.

As we understand the present situation, Mr. Pfefferkorn has offered to The Singer Manufacturing Company all rights in a device in the nature of a selective pattern cam control mechanism for use in conjunction with a family-type zigzag sewing machine. According to the copies of drawings enclosed with your letter, the cam control mechanism offered by Mr. Pfefferkorn has intially been applied to a Turissa zigzag family sewing machine which is provided with two manually controllable levers of which one is adapted for regulating the needle bight mechanism while the other is adapted to regulate the contral position of the needle. The pattern cam control mechanism as applied to the Turissa machine is connected with the bight regulator lever only so as automatically to shift such lever in a manner to produce various patterns of ornamental stitches.

[fol. 5164] The pertinent prior patented art relative to the subject mechanism is listed below:

U.S. No.	1,089,751,	Mar. 10, 1914,	Druckerman,
" "	1,512,738,	Oct. 21, 1924,	Aronson *et al.*,
" "	1,551,453,	Aug. 25, '25,	Aronson *et al.*,
" "	1,611,372,	Dec. 21, 1926,	Rader,
" "	2,623,487,	Dec. 30, 1952,	Marasco,
" "	2,653,557,	Sep. 29, 1953,	Casas-Robert *et al.*,
Br. "	19,184,	Sep. 12, 1908,	Magowan *et al.*

The broad idea of the subject mechanism is disclosed in the expired U.S. patent of Bader, No. 1,611,372, Dec. 21, 1926, which discloses a zigzag sewing machine having a

rotary pattern cam applied to the machine for the purpose of automatically manipulating a needle bight regulator lever which was primarily adapted to be manually manipulated.

The expired British patent of Magowan *et al.*, No. 19,184, dated Sep. 12, 1908, is also pertinent to the present issue for it discloses a zigzag sewing machine having two rotary cams and a manually controllable selector lever for connecting either of such cams with the bight regulator of the sewing machine whereby the operator may cause the machine to produce either of two different types of ornamental stitches. This British patent, however, does not disclose the idea of utilizing a single cam plate having one face thereof provided with a plurality of concentric cam track surfaces.

[fol. 5165] The unexpired U.S. patent of Marasco, No. 2,623,487, dated Dec. 30, 1952, discloses a Necchi zigzag machine as provided with the so-called "Wonder Wheel". This mechanism, like that of the subject device, comprises a rotary pattern cam which is connected with the bight control regulator lever of a zigzag machine for the purpose of automatically actuating such regulator lever to the end that various ornamental stitch patterns are automatically effected. Coupled with this Marasco mechanism is a variable speed driving mechanism in the form of a pair of complementary stepped pulleys which may be belted together in various combinations so as to drive the pattern cam at different rates of speed.

In view of the above, it is obvious that the subject mechanism is not broadly new. However, we believe that the cam plate with its concentric cam track surface design is specifically new as applied to a zigzag stitch sewing machine and is perhaps of a patentable nature. Also, it would appear that the specific form of variable speed drive mechanism is somewhat novel as applied to the rotary cam element of a zigzag stitch sewing machine. In view of this situation, we believe that specific patent protection might be had in most of the principal countries throughout the world. An investigation of our patent records indicates that as yet no patent has been issued covering the subject [fol. 5166] mechanism. Furthermore, from the correspondence accompanying your letter, we would surmise that only Swiss and/or German patent applications have been

filed for this mechanism. We do not, of course, know when such applications were filed, if ever [but it is possible that it is not yet too late to file patent applications for this mechanism in countries other than Switzerland and Germany.]

From the correspondence enclosed with your letter, it would appear that Dr. Müller is the owner of all rights in the subject device and that Müller is the son-in-law of Brütsch, which Brütsch, we presume, is connected with Brütsch & Co. of Zurich, Switzerland. If this is the case, we wonder what Dr. Müller's present connection is with Brütsch and whether Mr. Pfefferkorn is representing Müller, Brütsch & Co. or both parties. We might mention that the darning and embroidering machine discussed in the first paragraph of your letter is disclosed in U.S. patent No. 2,623,486, Dec. 30, 1952, which is assigned on its face to Brütsch & Co., Zurich, Switzerland. It is our understanding that Dr. Müller has recently offered the rights in and to this patent to Singer.

Summarizing, we believe that the present device comprises specific patentable subject matter only and that it infringes no Singer-owned patents, nor would it appear to interfere with any Singer developments of which we [fol. 5167] have knowledge. In our opinion, the patent rights offered will be of little value to us unless Singer is contemplating developing a machine utilizing a structure similar to that shown in the drawing.

We are returning the material enclosed with your letter.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosures.

[fol. 5168] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 2

Received Patent Department, February 15, 1955, Answered February 23, 1955

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N.Y.
Division of Research

In Replying Please Refer to MLW:V3

February 11, 1955.

J. G. Stanford, Esq.,
Elizabethport, New Jersey.

Dear Mr. Stanford:

Free Arm Zigzag Automatic Machine—Haas

In reviewing some correspondence relative to free arm zigzag machines, I came across some letters and reports from Mr. Gebhardt at Karlsruhe concerning a machine which Swiss engineer Haas has shown to our friends in Karlsruhe and, obviously, he was and, I believe, still is interested in offering it to Haid & Neu or Singer. Mr Gebhardt's latest letter and report indicates in its concluding paragraphs considerable question that the machine is one in which either Haid & Neu or Singer would be particularly interested. However, as I did not note that you have seen this correspondence previously, I am sending it in its entirety (the original of all the letters included) to you so that you may make any records that you may wish concerning the machine and its inventor. If you have any comments upon the structure of the machine or a desire to know more about it, please let me know, as it might be possible that more information could be obtained on our approaching visit to Germany and Switzerland.

Kindly return all of this correspondince when you are finished with it.

Very truly yours, M. L. Waterman, Vice President.

Enclosures

Letter in triplicate.

[fol. 5169] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 3

February 23, 1955.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Free Arm Zigzag Automatic Machine—Haas

We acknowledge the receipt of your letter of February 11, 1955, MLW:V3, enclosing your correspondence relative to the subject zigzag machine. We have made copies of this correspondence for our file and thus we are returning the original correspondence to you.

Investigation through our files indicates that the subject Haas zigzag sewing machine is disclosed in a Swiss patent of Haas No. 300,900, August 25, 1953. The machine disclosed in this Swiss patent appears to correspond substantially with Mr. Gebhardt's written description.

From the Haas patent it would appear that the subject machine is particularly characterized by its single disk cam which is provided on each of its two opposite faces with a plurality of cam grooves which are adapted to receive a pair of cam followers. Apparently, these cam followers may be maneuvered to engage selective cam grooves thereby to produce various types of ornamental stitches. From this, it is to be appreciated that broadly speaking the Haas zigzag mechanism is similar to that [fol. 5170] which has been proposed for use with a modified form of the Class 306W machine, as well as for use

in the Experimental 282 machine. However, the claims of the Swiss Haas patent are concerned with the specific Haas structure and, thus, we do not believe that they would interfere with Singer's right to manufacture and sell the above noted modified Class 306W or Experimental 282 structures.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosure—

Correspondence

[fol. 5171] In United States District Court

Defendant's Exhibit 4

Received M.L.W., December 2, 1954. Answered—

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

December 2, 1954.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Multiple-Cam Ornamental Stitch Sewing Machines

Recently in several foreign countries there have been published for opposition adversely-owned patent applications disclosing and claiming multiple-cam zigzag stitch sewing machines of the type adapted for family use. We feel that our competitors have on file many patent applications for multiple-cam machines and that the applications will soon be published in the major foreign countries. Indications show that at least some of these applications were filed one to two years prior to ours and, if granted,

will interfere with our world-wide distribution of sewing machines of the type like the newly designed Perla (modified Class 306W) and Johnson (Exp. 282) multiple-cam zigzag machines.

However, we may be able to prevent the granting of many of these patents with broad claims through opposition proceedings, in the event that we can prove that the claims are anticipated by prior patents, publications, or machines. Although we obtain copies of all U.S. sewing machine patents and, also, those of many foreign coun- [fol. 5172] tries, we cannot hope to acquire as a general procedure all of the publications containing disclosures of sewing machines or the evidence of the first commercial use of all of our competitors' sewing machines.

We believe that now is the time to begin to develop a defense, and that it would be highly desirable for us to acquire through our foreign friends copies of publications which disclose multiple-cam zigzag sewing machines. By publications we include all periodicals such as women's magazines and trade journals, as well as advertising brochures instruction books and adjuster's manuals. We are interested in such publications which bear an early publication date and particularly those published prior to the year 1954.

For example, a patent application of Husqvarna of Sweden was recently published in Portugal with broad claims which may be interpreted to cover a multiple-cam zigzag sewing machine. Since this Husqvarna application claims a priority date in Sweden of September 1, 1953, an Italian instruction book of the Vigorelli Model ZZ/A multiple-cam machine and bearing a publication date of 1952 or early 1953 would be of assistance to us in our efforts to prevent Husqvarna from securing broad claims in Portugal.

In view of the above, we think it would be well if our [fol. 5173] foreign friends would furnish us, at the earliest opportunity, with all publications, instruction books and advertising material which discloses multiple-cam zigzag stitch sewing machines wherein various cams may be selected for imparting different patterns of lateral zigzag movements to the needle. Obviously, a request for this information from your office would bring quicker results.

Since the opposition period in connection with the Husqvarna Portuguese patent application expires on Jan. 18, 1955, any information relative to the Husqvarna machine and to the Vigorelli ZZ/A instruction book would have to be in our hands before that date.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

In triplicate.

[fol. 5174] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 5

December 16, 1954.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Multi-Cam Family Zigzag Sewing Machine—Experimental 282 Machine—R. E. Johnson.

We have been requested to report the patent status of the Experimental 282 machine which forms the subject of a U. S. patent application which we filed November 24, 1954.

An investigation indicated that the present machine contains a plurality of patentable features of which all are disclosed and claimed in our above noted patent application and which are listed below as follows:

1. Rotary cam and cam selector mechanism.
2. Needle-bar and needle-bar gate mechanism.
3. Rotary hook.
4. Shiftable throat-plate.
5. Throat-plate thread-guard.
6. Presser-bar mechanism.
7. Needle clamp.

In time, this single patent application will be separated into several applications, each claiming a single one of the above listed features.

[fol. 5175] Attached to this report is a memorandum listing all of the features of this machine which are not new but which are covered by unexpired Singer U. S. patents.

As to the question of infringement of the present machine, our investigation has developed no unexpired adversely-owned patents, United States or foreign, containing claims which would be validly infringed by the present machine. Therefore, as far as issued patents are concerned, our Company is free from a patent standpoint to manufacture and market this machine in all of the principal countries of the world.

However, the most important feature of the present machine comprises a multi-cam needle-actuating mechanism provided with a cam selector means, and various comparable forms of this feature have been incorporated in several recently introduced competitors' machines and have been disclosed in patent applications published for opposition in at least two foreign countries. Since it would appear that each of the competitors' multi-cam and cam selector devices were developed prior to the conception date of the present Singer construction, there is a possibility that one of our competitors may obtain patent claims in one or more countries including the United States, which claims may be [fol. 5176] infringed by the present Singer machine.

More specifically, to our knowledge the first multicam and cam selector mechanism employed within a sewing machine housing was incorporated in the Italian-made Vigorelli Model ZZ A zigzag stitch sewing machine which formed the subject of our report of October 28, 1953 (53 P.S. 474). The Vigorelli cam mechanism includes a removable unitary nest of stacked cam elements of which a single cam may be selected by the operator for the purpose of effecting a predetermined pattern of ornamental zigzag stitches. To our knowledge, this machine was first introduced into the United States in September 1953 and apparently it was publicly displayed in Italy as early as 1952.

The Japanese-made Brother zigzag sewing machine, type A23-B-1, has recently appeared in the United States and this machine is provided within the hollow portion of its bracket-arm with a nest of seven dissimilar cams carried upon a vertically-disposed stub shaft which may be clutched

to and declutched from the main driving shaft of the machine by a manually controlled clutch. Cooperating with this nest of cams is a single cam follower arm which controls the amplitude of needle vibration and which is pro-
[fol. 5177] vided with means whereby the operator may shift the arm back and forth in a vertical direction so that the latter may be made to engage any one of the cams or any pair of adjacently disposed cams to the end that the machine can be made to produce automatically any one of a plurality of ornamental stitch patterns.

The recently published Brazilian patent application No. 67,354, dated May 12, 1953, and filed in the name of Brütsch & Co., discloses and claims a zigzag type of sewing machine provided with two rotary pattern cams and a cam follower which may be selectively engaged with either one of the two cams for the purpose of imparting a selective one of two ornamental stitch patterns to the laterally shiftable needle. The claims of this patent application would appear to read upon the present machine. However, we believe that these claims are unduly broad in scope in view of the expired Magowan et al. British patient No. 19,184, dated September 12, 1908. In view of this situation, we have lodged an opposition against this Brazilian application and we are hopeful that we may be able to restrict these claims to a degree that they will not dominate the present machine in Brazil. We presume that Brütsch & Co., the
[fol. 5178] owner of this Brazilian application, has filed corresponding foreign applications in other countries including the United States.

We have recently learned that the Swedish firm of Husqvarna on June 18, 1954 filed a patent application, No. 31378, in Portugal and that this application covers a zigzag type sewing machine which employs a plurality of cams of which each may be selectively chosen for shifting the needle laterally of the direction of feed. It appears that this Portuguese patent application corresponds to a prior Husqvarna application filed in Sweden on the 1st day of September, 1953, under No. 7838. Before taking any action to oppose those several Husqvarna applications, we are endeavoring to gain more specific information concerning the Husqvarna machine.

From the above, it will be appreciated that the patent

situation concerning multi-cam operated zigzag machines is nebulous because of the recent accelerated activity of our competitors in this field all over the world. Because pending patent applications of our competitors are not open to inspection until they are published for opposition, it is impossible to predict who, if anyone, will acquire dominating patents in this field.

[fol. 5179] The manufacture and sale of the multi-cam constructions devised by Singer may ultimately result in the infringement of claims of patents which may issue to one or more of our competitors. However, if the Company wishes to produce and market machines incorporating the stacked cam arrangement we would recommend that it proceed to do so and that each question of infringement of a competitor's patent be dealt with when and if it arises.

We shall keep close watch for further developments in this field and take all possible steps to keep it open for Singer.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosure—

Memorandum

CC:Mr.A.W.Reiner.

[fol. 5180] Additional art:

U.S. No.	386,252,	Jul. 17, 1888,	Leilich,
" "	1,573,138,	Feb. 16, 1926,	Brase,
" "	1,611,372,	Dec. 21, 1926,	Rader,
" "	2,202,609,	May 28, 1940,	Sturzlinger,
" "	2,308,465,	Jan. 12, 1943,	Hale,
" "	2,377,293,	May 29, 1945,	Reece,
" "	2,682,845,	Jul. 6, 1954,	Casas Robert *et al.*,
" "	2,684,649,	Jul. 27, 1954,	Scarpa,
Austrian "	155,404,	Aug. 15, 1938,	Singer N. A. G.,
British "	138,120,	Jan. 24, 1920,	Rooker,
British "	266,301,	Jan. 14, 1927,	Ezbelent *et al.*,
British "	427,531,	Nov. 9, 1934,	Schweiger,
French "	573,003,	Oct. 18, 1923,	Brase,
German "	694,339,	Dec. 22, 1938,	Hermann Kohler Akt.-Ges.,
Swiss "	275,136,	Aug. 5, 1949,	Fritz Gegauf Akt.-Ges.,
Japanese "	13,119,	Oct. 23, 1907,	
Australian Appl.	18,160,	May 11, 1953,	Brütsch & Co.,
Japanese "	4,585,	Apr. 10, 1950,	Kokichi Matsuda,
Japanese U.M. Appl.	1,669,	Feb. 5, 1951,	K. Matsuda,
" " "	1,363,	Jan. 31, 1951,	K. Matsuda,
" " "	1,670,	Feb. 5, 1951,	K. Matsuda,
" " "	11,919,	Sep. 13, 1951,	Bunsaku Taketomi.

[fol. 5181] Memorandum--CAW-Z—December 15, 1954

Singer-owned U.S. patents and patent application covering ~~Experimental~~ Machine 282.

No. 2,131,005,	Sep. 20, 1938,	Chason,	Thread Tension,
" 2,394,510,	Feb. 5, 1946,	Clayton,	Inclined Needle Bar,
" 2,450,837,	Oct. 5, 1948,	Marsac,	Dobbin Winder,
" 2,444,826,	Jul. 6, 1948,	Happe,	Motor Brush Assembly,
" 2,448,500,	Aug. 31, 1948,	Turner,	Motor Bearing,
" 2,478,551,	Aug. 9, 1949,	Turner,	Motor Yoke Centering,
" 2,617,375,	Nov. 11, 1952,	Peets,	Motor Drive,
" 2,677,042,	Apr. 27, 1954,	Peets *et al.*,	Lighting Device,
Appl. No. 230,044,	Jun. 5, 1951,	Peets *et al.*,	Two Pin Receptacle and Motor Plate.

[fol. 5182] In United States District Court

Defendant's Exhibit 6

Referred to: Mr. Evans

For: Please note that we have marked this letter confidential as we do not want the competition to know that we are so much interested in obtaining this information about their machines.

M. L. Waterman.

[fol. 5183] The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

In replying please refer to RMM:V9

December 20th, 1954.

Confidential

W. P. Evans, Esq.
Milan, Italy

Dear Mr. Evans:

Multiple-Cam Ornamental Stitch Sewing Machines

Recently in several foreign countries there have been published for opposition adversely owned patent applications disclosing and claiming *multiple cam* zigzag stitch sewing machines of the type adapted for family use. We feel that our competitors have on file many patent applications for *multiple cam* machines, and that the applications will soon be published in the major foreign countries. Indications show that at least some of these applications were filed several years ago.

We may be able to prevent the granting of many of these patents with broad claims through opposition proceedings in the event that we can prove that the claims are anticipated by *prior patents*, publications or machines.

In view of the foregoing it would be highly desirable for us to acquire copies of publications which disclose *multiple-cam* zigzag sewing machines. By publications we mean all periodicals such as women's magazines and trade journals as well as advertising brochures, instruction books and adjuster's manuals. We are interested in such publications which bear an early publication date, and particularly those published prior to the year 1954 going back as far as 1949.

For example, a patent application of Husqvarna of Sweden was recently published in Portugal with broad claims which may be interpreted to cover a *multiple cam*

zigzag sewing machine. Since this Husqvarna application claims a priority date in Sweden of September 1, 1953, an Italian instruction book of the Vigorelli Model ZZ/A *multiple cam* machine and bearing a publication date of 1952 or early 1953 would be of assistance to us in our efforts to prevent Husqvarna from securing broad claims in Portugal. Since the opposition period in connection with the Husqvarna Portuguese patent application expires on January 18, 1955 any information relative to the Virorelli ZZ/A instruction book would have to be in our hands well before that date.

[fol. 5184] It would be appreciated if you could send us a list of the publications mentioned above, which we have requested prior to their actual dispatch in order that we can eliminate possible duplication which may be made available to us from other sources.

Yours very truly, M. L. Waterman, Vice President.

[fol. 5185] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 7

Referred to: Mr. Adamson

For: Please note that we have marked this letter to you as confidential.

M. L. Waterman.

[fol. 5186] The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.

Confidential

In replying please refer to RMM:V9

December 20th, 1954.

L. Adamson, Esq.
Frankfurt, Germany

Dear Mr. Adamson:

Multiple-Cam Ornamental Stitch Sewing Machines

Recently in several foreign countries there have been published for opposition adversely owned patent applications disclosing and claiming *multiple cam* zigzag stitch sewing machines of the type adapted for family use. We feel that our competitors have on file many patent applications for *multiple cam* machines, and that the applications will soon be published in the major foreign countries. Indications show that at least some of these applications were filed several years ago.

We may be able to prevent the granting of many of these patents with broad claims through opposition proceedings in the event that we can prove that the claims are anticipated by prior patents, publications or machines.

In view of the foregoing it would be highly desirable for us to acquire copies of publications which disclose *multiple cam* zigzag sewing machines. By publications we mean all periodicals such as women's magazines and trade journals as well as advertising brochures, instruction books and adjuster's manuals. We are interested in such publications which bear an early publication date, and particularly those published prior to the year 1954 going back as far as 1949.

In this connection we would appreciate your forwarding

to us the following copies of the German edition of DNZ Magazine which appeared to be missing from our files.

1949	1950	1951	1952
All Copies	January	June	January
	February	November	February
	March		

It would be appreciated if you could send us a list of the publications mentioned above, which we have requested, [fol. 5187] prior to their actual dispatch in order that we can eliminate possible duplication of items which may be made available to us from other sources. This of course does not apply with respect to the copies of DNZ Magazine.

As there is great urgency attached to this request we would appreciate it if you can give it your prompt attention.

Yours very truly, M. L. Waterman, Vice President.

[fol. 5188] In United States District Court

Defendant's Exhibit 8

Confidential

January 3rd, 1955.

M. L. Waterman, Esq.,
Vice President,
Singer Building,
149 Broadway,
New York 6.

Dear Mr. Waterman:

Multiple-Cam Ornamental Stitch Sewing Machines

This is to acknowledge the receipt of your letter of December 20th contents of which have been duly noted.

With regard to copies of publications such as women's magazines and trade journals as well as advertising brochures, instruction books and adjuster's manuals I beg to advise you as follows.

We have been perusing all German women's magazines that matter regularly for the last 2 to 3 years but have never come across any articles which have gone to any extent into technical details of zigzag sewing machines. If any publications disclosing multiple cam zigzag sewing machines had appeared in such magazines we should have noticed them. In fact, editors of such magazines are in the habit of submitting to us the issues of their papers containing any discussions of sewing machines especially because they like to couple the opportunity of directing our attention to such publications with invitations to us to advertise in their papers.

Regarding trade journals there exist only two worth mentioning which treat of both family and industrial sewing machines. Firstly the

Deutsche Nähmaschinen Zeitung (D N Z)
with its German and Export editions

and secondly the

Deutsche Mechanikerzeitung
Zweirad & Nähmaschine (Z + N).

The DNZ Magazine is known to you both in its German and Export editions.

[fol. 5189] In accordance with your request we sent you last week, by air mail, as printed matter, the 13 copies of this magazine which you advised were missing from your files. For your guidance I may mention that the publication of the DNZ was resumed after the War first in July 1949.

The Deutsche Mechanikerzeitung is a trade paper for mechanics started after the War which at first was published chiefly for bicycle, office machine, etc. mechanics and to a lesser degree also for sewing machine mechanics. It has gradually increased the share of sewing machines in its publications. However, it has not become a specific sewing machine trade paper like the DNZ.

In order to give you an idea of this trade paper and its contents we are forwarding to you by sea mail 19 duplicate copies of this journal we have available of the copies issued in 1949 to 1951. Should you care to receive additional

copies of this trade journal, please advise and we shall send you the more recent publications as far as we shall be able to procure them yet.

We do not remember having seen any descriptions of multiple cam zigzag sewing machines in either of these trade papers before the first machines of this kind were actually put on the market in this country which was at the beginning of this year, with exception of the Elna Supermatic which was advertised for sale in June 1953 and the Necchi-Supernova which was shown in Germany for the first time about the same time.

As to advertising brochures we have none which were not sent or handed to you already at the occasion of your visit here in October of this year.

We are trying to procure additional printed matter on multiple cam zigzag sewing machines as well as instruction books and adjuster's manuals, although it is as a rule very difficult to obtain such manuals and instruction books.

I shall write you again as soon as additional material will be available, which, I hope, will be within a short time.

Yours very truly, [Copy Illegible].

[fols. 5190-5193] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 9

Confidential

CFB.og(Comm.)

Milan 12th Jan. 1955.

M.L. Waterman, Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman:

Multiple-Cam Ornamental Stitch Sewing Machines

We have read with careful attention your letter of December 20th (RMM:V9) which was unfortunately held up in the post over the Christmas holiday and did not reach us until last week.

It is not easy to obtain the references you seek for the period prior to middle of 1953 as the Vigorelli ZZ A multiple-cam machine was only exhibited for the first time at the Milan Fair in April that year. While we are still continuing our search, we are enclosing a copy of the press release issued by ANSA—the official Italian news agency—on March 21st reporting the comments of the Minister of Industry on the new Vigorelli machines and mentioning specifically "the group of cams incorporated in the machine". We are enclosing a translation of it.

Please also find attached a coloured folder of the Vigorelli multi-cam machine, dated June 1953. Unfortunately there does not appear to be any organized reference library with classified press reports and our enquiries are conducted on a hit-and-miss basis. Meantime we are sending you the enclosed so as to reach you in time to be of use.

Yours very truly, ——, ——, Campagnia Singer, per Macchine da Cucire.

Encls

[fol. 5194] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 11

June 16, 1955.

Compagnia Singer per Macchine da Cucire,
Palazzo Singer,
Via Dante 18,
Milan, Italy.

Attention: Dr. S. Lando

Gentlemen:

Italian Patent Law

Vigorelli owns Italian patent No. 497,557 filed in Italy on January 28, 1953 and claiming the broad idea of a zigzag type sewing machine having a plurality of rotary cams and means for selectively connecting any one of such cams to the needle-bar so as to produce a predetermined pattern of zigzag stitching. Such a claim would apparently be in-

fringed in Italy by a zigzag type machine which Singer is contemplating making.

Singer has recently acquired the ownership of an Italian patent of Carl Harris No. 509,535 which was filed in Italy on June 5, 1953 claiming a Canadian priority date of June 6, 1952, which priority date is some six months previous to the filing date of the Vigorelli Italian patent No. 497,557. Like the Vigorelli patent the Harris patent discloses a zigzag type sewing machine having a plurality of rotary cams and means for selectivity connecting any one of such cams to the needle-bar thereby to produce a predetermined pat- [fol. 5195] tern of zigzag stitching. Thus, it would appear that Harris was the prior inventor of the common subject matter disclosed in the Italian Harris and Vigorelli patents.

Unfortunately, however, the Harris patent does not specifically claim the multi-cam and cam selector means disclosed in the Harris and Vigorelli patents and, therefore, the question arises as to whether broadened claims of this scope can now be inserted in the Harris patent particularly in view of the fact that Vigorelli since 1953 has been manufacturing and selling in Italy its ZZ/A zigzag machine of the type disclosed in the above noted Vigorelli patent.

We appreciate, of course, that it may be impossible to place such broadened claims in the Italian Harris patent or, in the alternative, that if broadened claims could be placed in the Harris Italian patent they would not carry the Canadian priority date of June 6, 1952 but rather the date of filing such broadened claims. We also raise the question as to whether the Harris Italian multi-cam disclosure if unsupported by any claims relating to such structure could support a Singer allegation that Harris was, under Italian law, the first inventor of the multi-cam idea which is common to the Italian Harris and Vigorelli patents. In other words, on the assumption that it would be [fol. 5196] impossible to alter the present Harris Italian claims, the question is could the Italian Harris patent still be interpreted so as to anticipate and/or be infringed by the Vigorelli multi-cam structure as disclosed in Italian patent No. 497,557.

By way of background information, it might be pertinent to mention that the Italian Harris patent receives its priority date from a corresponding Canadian patent application filed on June 6, 1952, which has not as yet matured into a patent and which, as originally filed, did not claim the subject matter common to the Italian Harris and Vigorelli patents. However, we are at the present time endeavoring to broaden the claims of the Canadian application.

This matter is of vital importance and thus we would appreciate receiving an opinion in connection with our questions at the earliest possible opportunity. If, in your opinion, we could take any effective steps to improve the value of our Italian Harris patent, we would appreciate your advising us accordingly, if possible, by cablegram. However, we must mention that we are desirious of keeping secret the fact that Singer has any interest or ownership in the Italian Harris patent.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman

[fol. 5197] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 12

Received Patent Department, August 31, 1955, Answered—

Personal

August 16, 1955.

Mr. W. P. Evans,
18 Via Dante,
Milan, Italy.

Dear Mr. Evans:

In connection with the developments which we have under way in the matter of zigzag machines, we find that there probably is some conflict between patent rights which we

have, or which we expect to obtain, and rather similar patents that are being obtained by Vigorelli. I believe that this situation was the subject of some discussion between Mr. Stanford and Dr. Lando when Mr. Stanford was in Milan in April of this year. Dr. Lado was then very helpful to Mr. Stanford in obtaining copies of some patents that had been issued by the Italian Patent Office.

It is altogether probable that we may become involved in litigation with Vigorelli, not only in Italy but also in some other countries, unless by talking matters over with them we can find some basis of agreement which would enable us to be free from claims by them, and perhaps accord similar immunity to them with respect to claims by us based on our own patent rights. That is the situation as we see it from here and we feel that if any such discussion is to take place, it would be better to initiate it at an early date rather than wait until some of the developments now under way are brought out on the market.

The question is how to initiate such a discussion, and it is that which has caused me to write to you. I am quite sure that you have a certain acquaintance with the Vigorelli [fol. 5198] management and I would be much obliged if you would let me know exactly what this is and whether you feel that your contact with them is of such a character that it would facilitate the opening of discussion. Does Dr. Lando have any such acquaintance? If he does, it may be that Dr. Lando would be the one who could best open the matter with Vigorelli. I would be very glad to receive any information that you could send me along this line. You will understand that my inquiry is purely exploratory and that I would not wish to have either you or Dr. Lando say anything to Vigorelli until after we have received the benefit of your reply to this letter and have considered further the question of what course it might be wise for us to take. I suppose that if we were to open any such discussions we would wish to have the assistance of the attorneys in Italy who have been looking into these patent questions. I do not know whether I can get Mr. Stanford to return to Italy just at this time for the purpose of taking part in such negotiations, but I do know that he feels that it is very important that we make progress without wasting too much

time. Please give me the benefit of your information and your suggestions as to how we might best initiate and conduct such a negotiation.

Yours very truly, M. C. Lightner.

[fol. 5199] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 13

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1,500,000,000

Milan 30th August, 1955.

M. C. Lightner, Esq.,
149 Broadway
New York, 6

Dear Mr. Lightner:

I have read with great interest and attention your letter of August 16th on the subject of the patent situation vis-a-vis the Vigorelli Company.

Our relations with this competitor are friendly enough though our contacts are few and far between. Dr. Lando had some dealings with Mr. Vigorelli and his assistants during the war years, but has not had occasion to see much of them since, nor have my meetings and Mr. Baumann's during recent years been more than occasional ones.

Your enquiry has been discussed at length with Dr. Lando who, as you know, is something of an expert on patent matters. His first reactions were to proceed with the greatest caution in making the first move in such a delicate matter, especially as several of our competitors may be feeling none too sure of their respective positions.

However, should such an encounter be desired we would prefer the occasion to appear a fortuitous one, though presumably some mention would have to be made of new developments in the Company's automatic machines in order to justify the suggestion of a further "get together".

Providing Vigorelli's reactions were friendly and favourable a regular meeting would be arranged for a later date, at which we feel that the presence of a technical expert from New York would be quite necessary. Such a meeting would [fols. 5200-5201] be arranged so as to allow Mr. Stanford time to get here.

We understand quite well the purpose you wish to achieve in arriving at a basis of agreement with Vigorelli and if you should decide that this is the course to be followed we shall do our best to accomplish the matter successfully.

Yours very truly, W. P. Evans.

[fol. 5202] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 15

Received Patent Department October 25, 1955, Answered—

Compagnia Singer Per Macchine Da Cucire
Società Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1,500,000,000

Milan 20th October, 1955.

M. L. Waterman, Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman:

In accordance with the request contained in your letter of Oct. 14th (31-028), we have had a further meeting with Mr. Vigorelli at his factory in Pavia, as a result of which we cabled you today as follows:

"Your letter October 14th Gegauf Bernina patent 501172 deposited Switzerland May 31st 1952 and Italy May 30th 1953 stop Granted in Italy November 23d 1954 stop Stated to have been granted also in Germany and U.S.A. stop Expect to send you within fortnight detail of Bernina claims stop Dates you

suggest coincide with succession public holidays and Vigorelli now proposes meeting on November 16 or 17."

Dr. Lando obtained an appointment with Mr. Vigorelli on his return to town yesterday and during the course of this meeting was able to secure the details of the Bernina Gegauf patent which is the subject of current negotiations between Vigorelli and the Bernina Company.

As explained in the cable, there is a number of public holidays at the beginning of November, after which Mr. Vigorelli expects to have to go to Rome for an important engagement, though he does not know the exact date. Because of this he asked us to accept the 16th or 17th for our first meeting.

There is little to add to the information already sent in the cable except that you may be interested to know that in Spain the ALFA Company has commenced the manufacture of a multiple-cam machine along similar lines to those patented by Vigorelli and that Vigorelli has started opposition proceedings.

[fols. 5203-5204] The Vigorelli patent has already been granted in Italy, Spain, Argentine and other minor territories. It has been applied for, but not yet granted, in U.S.A., U.K., France, Brazil, etc.

Yours very truly, ——, —, Compagnia Singer, per Macchine da Cucire.

cc: Mr. M.C. Lightner, c/o Paris

[fol. 5205] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 17

Compagnia Singer Per Macchine Da Cucire
Societa Italiana Per Azioni
Sede Milano—Stabilimenti Monza
Capitale Sociale Lit. 1,500,000,000

Milan 24th October, 1955.

M. L. Waterman, Esq.,
149 Broadway
New York, 6

Dear Mr. Waterman:

Bernina Patent

This is to confirm the following exchange of cables:
Yours of Oct. 21st:

> "Re our cable October 20 your reply 21st stop Imperative we have copy of Italian Bernina patent 501172 early next week as needed for study prior our departure stop Due to conference date 16th or 17th now planning to leave here November 2nd proceeding to Germany first then Italy"

Ours of October 24th:

> "Your cable 21st Bernina Patent mailed today registered airmal."

We should explain that Bernina's Italian patent has not yet been printed and a transcription could only be obtained through the good offices of our patent agents. In view of the great urgency, however, the Rome office of Barzano & Zanardo worked over the week-end copying the text and making photographs of the drawings and we are accordingly able to send the required copy in Italian herewith. We are going ahead with the translation which we expect to be able to send in about 3/4 days.

We have also included with patent 501172 a copy of an earlier Bernina patent, No. 444104 of 1949, in case this should have some bearing on your investigations.

Yours very truly, W. P. Evans, Compagnia Singer, per Macchine da Cucire

cc: Mr. M. C. Lightner, c/o Milan

[fol. 5206] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 18

October 25, 1955.
Patent Department.
Correspondence Dept.

Telegram

Please send the following telegram:

Mrs. E. L. Snider
930 Warner Building
Washington 4, D. C.

Please conduct patent assignment search Fritz Gegauf and/or Bernina Nahmaschinenfabrik from 1950 to date.

Patent Department, The Singer Manufacturing Company, ——, ——, Patent Department.

[fol. 5207] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 19

air mail

October 25, 1955.

Mr. James M. McKinnon,
Singer Sewing Machine Company,
No. 6, 1-Chome, Shinkawa, Chuo-Ku,
C. P. O. Box 813,
Tokyo, Japan.

Dear Mr. McKinnon:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machines

We would like to invalidate several adversely-owned European patents each relating to zigzag stitch sewing machines and broadly claiming the idea of providing such a machine with a plurality of differently shaped rotary cams and means for selectively connecting any one of the cams with the needle-bar thereby to produce any one of a plurality of different patterns of ornamental stitches. These patents could be invalidated, or at least severly limited in scope, if we could locate one or more printed disclosures illustrating and describing such a machine, which disclosures were published in any country prior to May 31, 1952.

Our investigations have led us to believe that an ornamental stitch machine of this general type is disclosed in each of the ten Japanese patent and utility model applications, of which copies are enclosed. With the exception of [fol. 5208] Japanese patent application No. 13343 of 1953, you will note that each of these applications was filed in Japan prior to the critical date of May 31, 1952. However, none of these ten applications was published until after this critical date. Thus, it would appear that these applications in and of themselves would not assist us in invalidating the subject European patents. However, it occurs to us that possibly the subject matter of one of these ten patent applications might have been given publicity in

Japan prior to the critical date of May 31, 1952. In other words, one of these Japanese machines may have been illustrated and described, prior to May 31, 1952, in Japan in a newspaper, trade publication, or advertising brochure, which publication would assist us materially in invalidating the subject European patents.

We would appreciate it if you could possibly locate such a printed disclosure. We realize that such an investigation on your part might be extremely difficult. However, since Singer wishes to manufacture and market machines of the type claimed in the subject European patents, you will realize the importance to us of being able to invalidate or severely limit the claims of these adversely-owned patents. [fol. 5209] Referring to the ten enclosed patent applications, it is interesting to note that six of them were filed in the name of Kokichi Matsuda, three of them in the name of Bunsaku Taketomi and one in the name of Masataka Nakata. We presume that the identities of these patentees could be discovered without too much difficulty and that thereafter it could be determined whether or not these patentees or their employers have ever manufactured, sold or advertised machines of the type disclosed in the above noted ten Japanese applications. Even though such machines may have never been produced in quantity in Japan, it may be possible that one or two of such machines were made up and demonstrated at an industrial fair or at one of the Japanese universities. Such an exhibit might well have been covered by the newspapers and, furthermore, the machine may have been illustrated in printed brochures.

Any assistance which you may extend to us in connection with the above would be greatly appreciated.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—

Photostats of 10 Japanese appls. w/a list.

CC:Mr.M.L.Waterman, Mr.A.K.Aurell

[fol. 5210] Japanese Patent Applications and Utility Model Applications

Application No.	820,	Jan. 22, 1951,	Kokichi Matsuda
" "	3394,	Mar. 5, 1951,	Bunsaku Taketomi
" "	4585,	Apr. 10, 1950,	Kokichi Matsuda
" "	11318,	Aug. 31, 1951,	Kokichi Matsuda
" "	13343,	Jul. 26, 1953,	Bunsaku Taketomi
" "	11919,	Sep. 13, 1951,	Bunsaku Taketomi
Utility Model App. "	2834,	Feb. 11, 1952,	Masataka Nakata
" " " "	1362,	Jan. 31, 1951,	Kokichi Matsuda
" " " "	1669,	Feb. 5, 1951,	Kokichi Matsuda
" " " "	1670,	Feb. 5, 1951,	Kokichi Matsuda

[fol. 5211] In United States District Court

Defendant's Exhibit 20

Received Patent Department, Dec. 19, 1955, Ans'd—

Translation

Compagnia Singer Per Macchine Da Cucire
General Management, Milan, Dante 18

Milan 19th November, 1955.

Confidential

Registered

Messrs Arnaldo Vigorelli S.p.A.

Pavia

To the attention of Mr. A. Vigorelli

This is to inform you that, following the agreement signed on November 17th between the parties, we have today deposited in the offices of Messrs Balzano' & Zanardo, our Patent Agents, copies of the patent applications by Johnson and by Perla.

We take the opportunity to draw your attention to the fact that the patent application by Perla, erroneously indicated in the agreement as bearing the number 386.684, actually bears the number 473.855. The latter is therefore to be considered to substitute the wrong number.

Kindly acknowledge receipt of this letter and with best regards,

Yours very truly, ——, ——, Compagnia Singer, per Macchine da Cucire. Central Manager, signed Dr. S. Lando.

[fol. 5212] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 21

Received Patent Department, November 29, 1955, no answer.

Singer Sewing Machine Company
No. 6, 1-Chome, Shinkawa, Chuo-Ku
Tokyo, Japan
C. P. O. Box 813

November 26, 1955.

Mr. J. G. Stanford
The Singer Manufacturing Company
Patent Department
Elizabethport F, N. J.

Dear M. Stanford:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machines

We acknowledge receipt of your letter of October 25th on the above subject, with enclosures.

Our investigations so far have disclosed that Kokichi Matsuda is president of San Shin Mishin Kabushiki Kaisha (San Shin Sewing Machine Co., Ltd.) of 1579 Inatzuke Shimashita-machi, Kita-ku, Tokyo; Masataka Nakata is president of San Shin Zig-Zag Mishin Hanbai Kabushiki

Kaisha (San Shin Zig-Zag Sewing Machine Sales Co., Ltd.), same address, with the Nagoya branch at 24, 2-chome, Oike-chō, Naka-ku, Nagoya, where Nakata is located; and Bunsaku Taketomi operates a metal working shop in Nagoya. Since San Shin have been making zigzag machines from before May 31, 1952, we are arranging to obtain catalogs and/or specifications of their machines from the Ministry of International Trade & Industry, and hope to soon have more definite information lined up, when we will promptly advise you.

Yours very truly, Singer Sewing Machine Company,
J. N. McKinnon, General Manager.

S

cc: Mr. A. K. Aurell, Mr. M. L. Waterman.

[fol. 5213] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 22

Received Patent Department, January 4, 1956, Answered January 5, 1956

Singer Sewing Machine Company
No. 6, 1-Chome, Shinkawa, Chuo-Ku
Tokyo, Japan
C. P. O. Box 813

December 30, 1955.

Mr. J. G. Stanford
The Singer Manufacturing Company
Patent Department
Elizabethport F, N. J.

Dear Mr. Stanford:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machines

Further to our letter J9-1043 of November 26th, we are having considerable difficulty in accomplishing anything on this. Up to the present we find:

1. No catalogs or specifications are available from MITI on San Shin Zig-Zag machines produced prior to May 31, 1952.
2. Mr. Nakata, President of the San Shin Sales Company, was a prewar Supervisor of Singer here in Japan and well known to Mr. Shibawaka. He informs Mr. Shibawaka all their advertising materials, blue prints, records, etc., were lost when their plant burned down in October 1954.
   They are looking for old advertising material.
3. Mr. Ichinose informed us that some 5 years ago San Shin had manufactured a Zig-Zag machine which was found to infringe certain Necchi patents and withdrawn by San Shin—never marketed.
4. We have still been unsuccessful in locating Mr. Taketomi, the individual who holds three of the applications you referred to us.
5. We are now searching through as many Japanese sewing machine publications as we can find dated prior to or around May 1952 to see if we can gain some information from them.
6. We are now checking at the Industrial Research Bureau of MITI to learn if they have any information or sample Zig-Zag equipment.
7. We have been unable to get the exact details, but we learn through Pine contacts that in February 1951 San Shin obtained an export permit to ship 126 Zig-Zag machines of the Necchi type to the United States. Also we learn that San Shin applied in December 1950, possibly Mr. Matsuda, for a patent on a Zig-Zag machine. The Patent Examiner then in charge was a Mr. Matsuki. He is now a Patent Judge and we understand that he questioned the application at the time of its examination. This Mr. Matsuki, according to our Patent Attorney Mr. Matsuno, has handled the majority of Singer applications. When Government offices open in the new year we shall see what can be learned from Mr. Matsuki.

[fol. 5214] We are sorry at the present this is not a very encouraging report, but we feel eventually our efforts should uncover something which will be of assistance to you in resolving this matter.

Yours very truly, Singer Sewing Machine Company,

James M. McKinnon, General Manager.

JMM:s

cc: Mr. A. K. Aurell, Mr. M. L. Waterman.

[fol. 5215] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 23

Received Patent Department, January 24, 1956, Answered January 26, 1956

Singer Sewing Machine Company

No. 6, 1-Chome, Shinkawa, Chuo-Ku

Tokyo, Japan

C. P. O. Box 813

January 20, 1956.

Mr. J. G. Stanford
The Singer Manufacturing Company
Patent Department
Elizabethport F, N. J.

Dear Mr. Stanford:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machine

Further to our letter J9-1140 of December 30, 1955, we can report Mr. O. Nishimura, who is one of our General Distributors here in Tokyo, is closely associated with the

San Shin Zig-Zag Sewing Machine Co. and he has given us the following details regarding the development of this concern:

Mr. Matsuda, the president and the one holding six of the patents referred to in your letter, started to make arms and beds for family sewing machines in his machine shop from November of 1947. The first advertisement was made in the "Japan Sewing Machine Times" of December 15, 1947. Mr. Nishimura invested something in this concern and up until September 1951 San Shin existed only on manufacture of regular arms and beds. However, in October of 1951 a U. S. buyer asked the San Shin Co. to copy a zigzag machine he had brought with him as a sample. This was later found to be a Necci zigzag machine and they started making copies of this machine under their brand. However, at the time of export this similarity to Necchi was recognized by MITI. The export was disallowed and they were instructed not to make an exact copy of the Necchi zigzag machine. Then followed a period of development in which alterations were made to avoid any claims of infringement of Necchi patents. This resulted in the introduction of the SZ-10 type which is a modified version of the fixed eccentric cam style such as Necchi. The automatic type using many cams was first introduced to the local market in October 1954 and the announcement was made in the "Japan Sewing Machine Times" on October 15, 1954, a translation of the actual article is attached hereto for your information.

As a result of this we feel we must conclude that no automatic zigzag machine existed in the local market prior to May of 1952.

You will recall from our letter referred to above that we planned to contact a Mr. Matsuki, Patent Judge, who, we were given to understand, ruled on a patent application submitted in 1950 by Mr. Matsuda for patent on a zigzag machine. Our Mr. Saji followed up on this but was unable to contact Mr. Matsuki. However, he did meet Messrs. Kon and Konishi, Examiners in the Textile Section, who mentioned that the various applications for patents and utility model registrations on the multi-cam zigzag machine were passed much in their original form as they had been unable

to find any prior printed disclosures on the device. They [fol. 5216] have various trade publications on file but what information they do have on automatic zigzag machines is all dated later than May 31, 1952.

A recent development is the following article in the current edition of the "Japan Sewing Machine Trade News", in which San Shin issued warning against infringement of their patent rights:

"Sanshin Sewing Machine Co. Issues Warning Against Infringement of Patent Rights

Of late, a large number of manufacturers in this country have launched into the production of zigzag sewing machines, and, as a result, the problem concerning the infringement of patent rights has come to the fore.

The Shanshin Sewing Machine Mfg. Co., Ltd., which is widely known as one of the first zigzag sewing machine manufacturers of this country, has issued a warning to all concerns undertaking the manufacture of zigzag sewing machine equipped with a cam similar in structure to that which the Sanshin Co. secured patent (Pat. No. 213,096—Application #11318/1951) in March 1955, after filing an application in 1951. The said company was forced to take this action, because zigzag sewing machines of other makes which are equipped with a cam similar to the one manufactured by the company is wielding an adverse effect on the company's business.

The cam manufactured by the Sanshin Sewing Machine Mfg. Co., Ltd. consists of two or more cams which can be individually operated by means of a roller of the spring device connected to a dial.

The company has urged all zigzag manufacturers to immediately suspend the sale of sewing machines which, in any way, infringe upon the patent rights maintained by the said company, and has announced that it would take legal action against those who utilize the said cam without the company's permission."

We will endeavor to see Mr. Matsuki, but in view of the information that has so far been obtained we are doubtful that he will be able to shed any new light that will be helpful in resolving the matter.

Yours very truly, Singer Sewing Machine Company,
J. M. McKinnon, General Manager.

JMM:s

Encl.

cc: Mr. M. L. Waterman, Mr. A. K. Aurell.

[fol. 5217] In United States District Court,

Defendant's Exhibit 24

air mail

January 26, 1956.

Please refer to File P35-181

Mr. James M. McKinnon,
Singer Sewing Machine Company,
No. 6, 1-Chome, Shinkawa Chuo-Ku,
C. P. O. Box 813,
Tokyo, Japan.

Dear Mr. McKinnon:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machines

Thank you for your letter of January 20, 1956, J10-42, summarizing your latest findings in connection with this investigation.

From your letter it appears to be rather conclusive that no multi-cam ornamental zigzag stitch sewing machines were publicly introduced in the Japanese market prior to May 1952. It would further appear that the first of such machines was introduced in Japan in the latter part of 1954. From this it would seem that the various Japanese patents listed in our letter to you of October 25, 1955 disclose

multi-cam ornamental stitch sewing machine designs which before 1954 never were incorporated in machines publicly used in Japan.

We note from your letter that you are planning to see a Mr. Matsuki for the purpose of corroborating your findings as above outlined. In any event, the information which you [fol. 5218] have developed for us to date has been most helpful and we wish to thank you for your efforts on our behalf for we appreciate the amount of time and trouble that this investigation caused you.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Mr. M. L. Waterman, Mr. A. K. Aurell.

[fol. 5219] In United States District Court

Defendant's Exhibit 25

Received Patent Department, February 3, 1956, Answered February 7, 1956

Singer Sewing Machine Company
No. 6, 1-Chome, Shinkawa, Chuo-Ku
Tokyo, Japan
C. P. O. Box 813

January 28, 1956.

Mr. J. G. Stanford
The Singer Manufacturing Company
Patent Department
Elizabethport F, N. J.

Dear Mr. Stanford:

Further to our letter J10-42 of January 20th, we can report that our Mr. Suda of our Nagoya MTD operation investigated Mr. B. Taketomi, the individual who is shown on

the list as owning three applications. He reports as follows:

> "Accompanied by Mr. A. Iwamoto, shop salesman, I visited Mr. B. Taketomi's residence at 2-9 Uchiyama-cho, Chikusa-ku, Nagoya yesterday afternoon. Mr. Taketomi was away on a trip and I talked with his wife. She mentioned that the application so far filed, coming to the production stage, have been sold to an interested concern.
>
> Mr. B. Taketomi's residence, located halfway between the south side of Sakura Street and north side of Joto Hospital, Chikusa-ku, consists of a single-story house (shack) of 18 ft. wide and 12 ft. deep and a workshop of 12 ft. wide and 18 ft. deep; there were neither workers, machines, nor equipment. He has three children and the family consists of 5.
>
> It seems that Mr. B. Taketomi makes living by designing sewing machines and obtaining patents for his works.
>
> It was found that Mr. Taketomi sold his patents on zigzag sewing machines to Nippon Mishin Manufacturing Company (Brother) around March and July, 1954.
>
> Details were not found concerning the above information due to his absence: However, I believe that the above will be confirmed by the fact that the Brother Mishin Company started selling its new zigzag sewing machines Hz2B1 on March 15, 1954 and automatic zigzag sewing machines in July of the same year.
>
> According to his wife, Mr. Taketomi is an old friend of Brother Mishin".

[fol. 5220] Other than direct approach to the Brother people or a technical comparison between Brother's present zigzag machine and those patents held by Taketomi we are unable to confirm that the Nippon Sewing Machine Manufacturing Co. (Brother) are using the patents. We have not yet been able to determine whether the patents have been assigned to Brother by Mr. Taketomi.

Also Mr. Saji has been able to meet with Mr. Matsuki, Patent Judge, at the Patent Agency and herewith his report on this meeting:

> "He was unable to give us any data prior to the critical date, May 31, 1952. He stated all of the ten patent/utility model applications on multi-cam zigzag machines were examined after May 31, 1952. As he had no data on automatic zigzag machines he had hoped there would be oppositions filed, but he was disappointed.
>
> From what Mr. Matsuki has heard, some of the larger sewing machine companies are manufacturing automatic zigzag machines, but that Matsuda and Taketomi are the pioneers in this line. Apparently Mitsubishi, Rhythm and others had started research into automatic zigzag machines, but discontinued the hard work and left the field to Matsuda and Taketomi. Some time after the critical date (May 31, 1952) Mr. Matsuki had heard of a 'Bernina' and/or an 'Elna' multi-cam zigzag machine being brought into Japan and carefully studied and perhaps copied.
>
> Mr. Matsuki confirmed what the other Patent Examiners stated was Mr. Taketomi's occupation—that of a free lance inventor. Mr. Taketomi's name has appeared on many patent/utility model applications concerning sewing machines from some time back and Mr. Matsuki remarked that whereas formerly Mr. Taketomi had filed his applications through a Patent Attorney, he is now filing them himself."

Unfortunately, the foregoing information is of no help to the problem before us.

Yours very truly, Singer Sewing Machine Company,
J. M. McKinnon, General Manager.

JMM:s

cc: Mr. M. L. Waterman, Mr. A. K. Aurell

[fol. 5221] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 26

air mail

Please refer to File P35-181.

February 7, 1956.

Mr. J. M. McKinnon,
Singer Sewing Machine Company
No. 6, 1-Chome, Shinkawa, Chuo-Ku,
C.P.O. Box 813,
Toyko, Japan.

Dear Mr. McKinnon:

Possible Printed Disclosures in Japan of Multi-Cam Ornamental Stitch Sewing Machines.

Thank you for your letter of January 28, 1956, J10-61, summarizing your latest findings in connection with this investigation. It would appear from your above noted letter, taken in conjunction with your prior letter to us of January 20, 1956, that it is rather conclusive that no multi-cam ornamental zigzag stitch sewing machines were publicly introduced in the Japanese market prior to May 1952. Also, it would appear that such multi-cam ornamental stitch sewing machines were first introduced in Japan in the year 1954.

Apparently the Japanese patents listed in our letter to you of October 25, 1955 disclose multi-cam ornamental stitch sewing machine designs which were not incorporated into actual working models until some time shortly before 1954. We were most interested to learn that Mr. Taketomi sold his Japanese patents on zigzag sewing machines to [fol. 5222] Nippon Mishin Manufacturing Company (Brother) around March and July 1954.

In view of your findings, there appears to be little doubt but that their exists in Japan no prior art material which we could use in order to invalidate a United States or a European patent having a priority date of May 31, 1952. We believe that your investigation has been most comprehensive and, thus, unless you have certain definite leads

which you wish to investigate further, we would suggest that this matter be considered as closed. Again we wish to thank you for your efforts on our behalf.

As a matter of interest, it would appear to us that the various Japanese patents listed in our letter to you of October 25, 1955 broadly claim multi-cam ornamental zigzag stitch sewing machines to the extent that such patents would presumably be infringed in Japan by the newly proposed Singer Class 282 and Class 319 machines. In view of this situation, and in view of our relations with the various United States Brother companies, we would consider it inadvisable at this time for any of your agents to make any direct approach to the Brother people for the purpose of eliciting information concerning the Japanese [fol. 5223] Taketomi patents. Such inquiries would perhaps alert the Brother people to this situation particularly if the inquiries were traced back to Singer agents.

Your very truly, The Singer Manufacturing Company ——, ——, Patent Department.

cc: Mr. M. L. Waterman, Mr. D. P. Kircher, Mr. A. K. Aurell.

[fol. 5224] In United States District Court

Defendant's Exhibit 27

Received Patent Department, March 9, 1956, Answered—

March 1, 1956.

Confidential

Mr. Edgar Winteler
Compagnie des Machines a Condre Singer, S.A.
Singer Building, 13 Rue de la Confederation
Case Postale, Stand 47-763
Geneva, Switzerland

Dear Mr. Winteler:

With Mr. Graesser, Mr. Stanford and Mrs. Waterman, I am planning to come to Europe in about a month. The present plan, as far as I can definitely determine, is to ar-

rive in Genoa on April 9 and to stay over that night in Genoa and proceed at once on the morning of April 10 to Zurich. We do not now know how long we shall remain in Switzerland. This will depend upon whether we will at that time wish to enter into conversations with the heads of the Bernina Company or not. We shall know more about this in ample time so that I can advise you before we leave New York, which will be on March 31.

I would suggest that you, at least temporarily, reserve accommodations for the four in our party at the Baur-Au-Lac Hotel beginning the evening of April 10—I believe the train will arrive from Genoa around 5 P.M. in the afternoon, but I will let you know definitely about this later—and through Monday, April 16. The present plans would then comprehend our leaving Zurich in the afternoon of the 16th and possibly proceeding by air to Milan, arriving there late that afternoon.

As mentioned previously, there is the possibility that we will be wishing to talk with the top management of the Bernina Company, and we are interested to learn if you are acquainted with the persons who are in the responsible management positions. If so, we would appreciate learning their names, and if you have had any dealings with them to learn what you may know about them. Under no circumstances, however, do we wish you to pass any word to any persons in that company that we do have any intention of speaking with them about any matter, nor of speaking to any other persons who might apprise them of the possibility of meeting with them that I have mentioned. Any information that you can give to me about the Bernina Company's operations, as may have been reported to you in one way or another of late, would also be of the greatest interest.

Yours very truly,

[fol. 5225] In United States District Court

Defendant's Exhibit 28

March 8, 1956.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Multi-Cam Ornamental Stitch Sewing Machines

With reference to Mr. C. F. Baumann's letter to you of March 31, 1956 and to our recent telephone conversation I am enclosing a draft of a letter of the type which could be sent to Mr. Winteler under your signature.

We feel that Mr. M. C. Lightner's letter of August 16, 1955 to Mr. W. P. Evans in relation to the Singer-Vigorelli matter was especially good and we have altered Mr. Lightner's letter so as to make it appropriate in connection with the present Singer-Gegauf matter. We believe that this letter is specific enough to impart to Mr. Winteler a sufficient working knowledge of the Singer-Gegauf matter to enable him to appreciate the situation, but at the same time the letter avoids specific details which at the moment are of no concern to Mr. Winteler. Naturally, it would be advantageous to withhold from Mr. Winteler as well as Gegauf any detailed knowledge of the present situation until we have had an opportunity of negotiating in person with the Gegauf management.

[fol. 5226] In other words, it would appear to us that it would be advisable to handle the present Gegauf situation in substantially the same manner as the Singer-Vigorelli affair.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

Enclosure—

Proposed letter

[fol. 5227] Proposed Letter

Mr. E. Winteler,
Compagnie des Machines a Coudre Singer S.A.,
Singer Building,
13 Rue de la Confederation,
Case Postale, Stand 47-736,
Geneva, Switzerland.

Dear Mr. Winteler:

In connection with the developments which we have under way in the matter of zigzag machines, we find that there probably is some conflict between patent rights which we have, or which we expect to obtain, and rather similar patents that are being obtained by Fritz Gegauf A.G., Bernina-Nähmaschinen-fabrik.

It is altogether probable that we may become involved in litigation with Gegauf, not only in Switzerland but also in some other countries such as Germany and the United States, unless by talking matters over with them we can find some basis of agreement which would enable us to be free from claims by them and perhaps accord similar immunity with respect to claims by us based on our own patent rights. That is the situation as we see it from here and we feel that if any such discussion is to take place, it would be better to initiate it at an early date rather than wait until some of the developments now under way are brought out on the market.

The question is how to initiate such a discussion, and it is that which has caused me to write this letter to you. Perhaps you have a certain acquaintance with the Gegauf management and I would be most obliged if you would let [fol. 5228] me know exactly what this is and whether you feel that your contact with them is of such character that it would facilitate the opening of a discussion.

I would be very glad to receive any information that you could send me along this line. You will understand that my inquiry at the moment is purely exploratory and that I would not wish to have you say anything to Gegauf until we have received the benefit of your reply to this letter and have considered further the question of what course it might be wise for us to take.

As you know, I plan to be in Switzerland within the very near future and Mr. Stanford will be with me. Perhaps if all goes well we can at that time negotiate with Gegauf in order to effect some mutually beneficial arrangement between Gegauf and Singer. In any event, I will make no definite plans in this direction until I have had the benefit of your comments concerning your acquaintance with the Gegauf management and your suggestions as to the best manner of approaching such acquaintance relative to this subject. Since time is running short I would appreciate hearing from you as soon as possible.

[fol. 5229] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 29

March 9, 1956.

Personal

C. F. Baumann, Esq.,
Milan, Italy.

Dear Mr. Baumann:

Your letter of March 3rd, with the report of Dr. Lando's visit to Pavia, was greatly appreciated. There is no change at the moment in our plans to proceed directly to Switzerland from Genoa. We are undertaking to have the proper arrangements made in Switzerland so that we can meet with the proper persons of the Bernina Company, although this information should not be passed along to Mr. Vigorelli or any others other than yourself and Dr. Lando. I should comment most favorably on the completeness of Dr. Lando's report and the extent of the information which he was able to secure.

Very truly yours, ——, ——, Vice President.

[fol. 5230] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 30

GC13

SBZ1625/125 Zurich 53 13 1215
Singer for Lightner New York

Yesterdays Steckborn Conference Not as Straight Forward as at Pavia Last Fall Due Quite Obviously to a Feeling Of Assurance their Situation Is the Superior One Also Suspicious Our Intentions This Feeling Apparently Became Dissipated By end of our Sevenandhalf Hour Meeting Stop Next Conference Tomorrow Saturday Afternoon.

Waterman.

[fol. 5231] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 31

Received Patent Department, April 30, 1956, Answered—

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.
Division of Research

In Replying Please Refer to 31-026

Dictated at Zurich April 15, 1956.

Bernina Agreement

When we arrived here Tuesday, I met Mr. Kirker from Geneva. He is a very good man, and we worked very well together. One of the first things we did was obtain from the Patent Office at Bern a copy of the Bernina application. As you know, the date of registration on this patent was November 1955, and it was published on February 29th of this year. We studied this patent in some detail, and we found that Bernina had acknowledged in the preamble to

the specification all of the references of which we thought we could destroy most of the claims of Bernina. The principal claim read directly on our 282 Experimental Machine, and it was Mr. Kirker's feeling that this claim would stand up in the Swiss courts. His reasoning was based somewhat upon the fact that the registration could be prior to January 1956 and, therefore, the references would not be available to use had the patent been registered after January 1956. Under the new Swiss law, entire patents which we intended to use would then have been good anticipations. One of the interesting features of this Swiss patent was the fact that it disclosed only one modification, namely the modification in which a single cam selector played over the entire series of cams. We learned also that there were no divisions of the original patent but that there was a patent application of addition, which was filed in April 1953. It would seem from the facts available to us at that time that the priority date claimed by Bernina for their patent applicatioon in Italy applied only to the first modification or, namely, to the same modification as shown in the Swiss patent and, therefore, Brutsch, which was filed in September 1953 came before the disclosures of the other modifications. In discussing this matter with Bernina's attorney, we learned that the United States application contained all of the modifications shown in the Italian patent and that in Germany only the first modification files, that is the cam selector playing over the entire series, was disclosed.

After discussing the matter almost the entire day with Mr. Kirker it was concluded that it was highly desirable that we enter into an agreement with Bernina concerning the conflicting patents and patent applications relating to the multiple cam machines.

[fol. 5232] As we saw it, Bernina had a patent which would cover our Experimental 282 Machine in Switzerland. They had an Italian patent, the validity of which was in serious question, a German patent application, which in all probability would be published for opposition with a claim which would dominate the Experimental 282 Machine, and then there was the United States application, which had a filing date nine days before the filing of the Harris patent.

On Wednesday, we visited Mr. Gegauf at his factory in

Steckborn. We found it to be a clean, well-organized factory, which I will tell you about when I return. Present at the negotiations, were Mr. Waterman, Mr. Winteler, Mr. Kirker, and myself for Singer; and Mr. Fritz Gegauf, Sr., Mr. Fritz Gegauf, Jr., Mr. Bernhard, Mr. Meyer of the Company Bernina; Mr. Willi of the Patent Attorneys E. Blum of Zurich. I was overjoyed to find that Mr. Willi was representing Mr. Gegauf, for after the things that I had heard about Mr. E. Blum, I could see little possibility of arriving at an amicable solution of the problem with which we were confronted. Mr. Willi turned out to be a very pleasant young man.

The main basis of our negotiations was that both parties had more to gain than to lose by agreeing not to attack each other. Mr. Fritz Gegauf, during these negotiations, was particularly outspoken in his assertions that in his opinion the Brinina patent position was much stronger that was Singer's. Many words passed, and many points were raised but, finally about 8:00 p. m. that night we placed on paper, and in the German language, what might be termed a declaration of intent. It was obvious that the wording of the Vigorelli agreement would not serve in this particular case and, with this in mind, the next day we started a draft on the proposed agreement. The final agreement was finally placed in the English language and, in substance, was as follows:

The first part of the agreement lists the Harris U. S. Patent and the corresponding reissue patent application. It then lists all the corresponding foreign patents and patent applications. We felt it desirable to place all of these patents of record because the list was quite imposing. Following the list of Singer patents, Gegauf lists the four patents in which we are interested. The agreement then goes on to say that Singer and Gegauf interference proceedings are about to be instituted in the United States between the Harris reissue application and the one or more applications of Gegauf, which correspond wholly or in part to his above-listed Swiss and Italian patents.

The first paragraph of the agreement then goes on to say that Gegauf and Singer each undertake not to do anything directly or indirectly in any country, the result of which

would be to restrict the scope of the claims of the other party. The obvious intent of this is to avoid opposition proceedings; in other words, Singer will not oppose the [fol. 5233] applications of Gegauf, and Gegauf will not oppose the applications of Singer. The only countries in which this clause or paragraph has any direct bearing is in Germany and Sweden. In short, we will not oppose Gegauf's German patent application, and they will not oppose any applications which we may have pending which relate to the multiple-cam type of machine.

The last part of Paragraph 1 says that Singer and Gegauf each undertake, in accordance with the laws and regulations of the Patent Office concerned, to facilitate the allowance of claims as broad as possible as regards the subject matter of the patents and patent applications on which the agreement was drawn. The only place that this will be of any importance is in the United States, and the sum and substance of it is that whichever party is entitled to the claim, in accordance with the laws and regulations of the United States Patent Office, will receive the claims. It appears to me that, if Gegauf has filed first, and we know as a matter of fact that Harris could not push his date back of his filing date, then Gegauf would be entitled to the claim which has been suggested to them, or which will be suggested to them when the interference is actually declared.

So, Paragraph 1 contains nothing that could be construed as any collusion on the part of either Singer or Gegauf as to patent matters throughout the world. It simply states that we will not oppose their applications and that we will do all we can to facilitate the allowance. In fact, this is in the public interest because the sooner or the earlier the applications of Gegauf and Singer are out, the more it is to public benefit.

The second paragraph is by far the most important—that is, the second and third paragraphs. In the second paragraph, Singer undertakes not to attack Gegauf either directly or indirectly under the Harris Patent or any of its corresponding foreign patents and, further, that Singer also undertakes not to attack the construction of the present Bornina sewing machine—that is the sewing machine which we had there in the Patent Department and examined carefully to determine just what we thought of its patent status.

As far as I can determine, this paragraph merely gives them the right to continue the manufacture of their machine without fear of infringement of the Harris U. S. application reissue, or the corresponding patents throughout the world. As I stated before, it would seem that they are entitled to the broad claim, and, therefore, this paragraph has little or no meaning as far as the United States is concerned. Its main import would be the French patent and the Canadian application, if it should issue, with broad claims. I [fol. 5234] fully appreciate that at the moment the application in Canada is highly questionable due to the fact that the examiner has apparently suggested a possible interference or conflict with the patent application of another party.

In Paragraph 3, Gegauf undertakes not to attack Singer directly or indirectly in any country on the basis of the patent mentioned in the first part of the agreement. In other words, Gegauf in effect has agreed that both the 319 and the Experimental 282 Machine may be manufactured and sold in any country without fear of patent infringement insofar as his patent applications relating to multiple-cam sewing machine patents are concerned.

In the fourth paragraph of the agreement, Singer undertakes not to manufacture or sell a construction which would be a "slavish copy" of the present construction of the Bernina machine taken as a whole, and also that it will not manufacture or sell the feeler and multiple-cam mechanisms of the said Bernina construction. Bernina seems to be quite worried about Singer copying their mechanism. This is understandable in that they feel their machine is the best on the market and, further, Singer not yet having put a machine on the market, that we really wanted to copy their mechanism. We assured them that this is not so and, to allay their fears, this paragraph was placed in the agreement.

I am sure that when you read paragraph 5 you will be quite surprised. This paragraph was insisted upon by Gegauf, and I suppose that you could, if you wished, accept it as a compliment in that he is very anxious indeed to have the assistance of the patent attorneys of Singer. This raised a considerable problem for us because we did not know how to word it to not make it look as though there

were collusion between Gegauf and Singer. Of course, we did not wish to put this in the contract or agreement at all but, as both our attorney and their attorney and Mr. Gegauf seemed to be quite insistent on the matter, we put it in in such a way that I feel it is almost worthless and innocuous.

Paragraph 5 reads Singer undertakes to give to Gegauf on request of the latter amicable assistance of its attorneys for the defense of any of the above-mentioned Gegauf patents or patent applications against an action of cancellation. Now you will see that we do not agree to assist Gegauf in any offensive action—that is, if he wishes to sue someone on the strength of his patents, that is entirely up to Mr. Gegauf, and Singer does not in any way or is it in any way obligated to assist him in an aggressive use of his patents. On the other hand, if his patents are under attack in a foreign office, we would as I see it under Paragraph 5 be required to simply give him an opinion as to whether or not the attack being made upon his patents was firmly based in law. In other words, we would simply have to express an opinion as to whether or not the references or the pub- [fol. 5235] lications which may be referred to in any attack upon Gegauf patents were of such a nature as to warrant the Patent Office, in the country in which they were attacked, holding the claims of the patent to be invalid and therefore cancelling the patent.

As I mentioned before, I am not at all pleased with Paragraph 5, but there seemed to be no way out, and I certainly think that it is innocuous.

Paragraph 6 sets out that both parties will make known to the other party any previous agreement which they have made concerning the particular patents. We, of course, knew that Mr. Gegauf had entered into an agreement with Vigorelli, and we felt sure that Mr. Gegauf had been informed by Mr. Vigorelli that we had entered into an agreement with him. So, at the time of signing the agreement, Mr. Gegauf stated that he had entered into an agreement with Mr. Vigorelli, and we at the same time said that while our agreement was not the same as his, in that we were concerned with the idea of sensing two cams simultaneously or of taking information from two cams and combining them to obtain a result, however, as far as the Harris Patent was concerned, we had agreed with Mr. Vigorelli that we would

bring no action against him on any claims that we might obtain on the Harris application.

Mr. Gegauf seemed quite relieved when this was all over, and he stated that that morning he had called Mr. Vigorelli to make sure that Mr. Vigorelli had no objection to the agreement, and also he stated that Mr. Vigorelli said that he thought it would be fine if Mr. Gegauf entered into an agreement with Singer.

The remaining part of the agreement is nothing more than the usual clauses to any agreement of this kind. I think that over-all the agreement is all that we could have asked for. You will notice that in this agreement no mention is made of the Johnson application or the Perla application. It seemed to me during the negotiations that it was much better not to bring this matter up—first, we were not particularly anxious to have Mr. Gegauf in possession of that information, although it is interesting to know that he knew all about our 319 Machine and had a photograph there which had been sent to him from Canada. He also called our attention to the fact that he knew that we were tooling-up and getting ready to put on the market a machine which is somewhat similar to his. We assured him that it was not similar in any sense of the word and that it was a completely new machine, completely new to Singer or, as far as we knew, to anyone.

We found Mr. Fritz Gegauf, Sr., to be a very interesting person. He was not at all hard to deal with. He has quite [fol. 5236] a humorous pair of eyes and seems to be a very, very pleasant and straight-forward person. After what we had heard from Mr. Vigorelli in Italy, I had looked for something entirely different.

As far as I can see it at the moment, this agreement with Bernina more or less clears the way for the Experimental 282 Machine. I appreciate that down in Brazil we have a Gegauf matter which we are now poking, and also that Husqvarna has filed a patent application in Portugal that we may have to deal with later on, but it would seem to me that now we have entered into this agreement with Bernina we are free in the principal countries of Europe to place either the 319 or the Experimental 282 Machine on the market without fear of patent infringement. In saying this, I am not unmindful of the fact that in Germany it is

entirely possible that someone will have antedated Bernina but, so far as we know, and as I recall we have gone over the subject exhaustively, no one has filed a patent application prior to Bernina's. A moment ago, when referring to Brazil, I mentioned Gegauf. Of course, you realize that I should have said Brutsch. Bernina having filed first in the United States and, as we cannot take our dates back of our filing date, it would seem that Bernina will be entitled to the broad claims.

We did not approach Mr. Gegauf concerning the possible purchase of his patent with the license back to Bernina. There is a time and place for everything, and we did not think that this was the time. We can consider this matter after we have more information and, if it is concluded advisable, the subject matter can be raised at that time. I am still of the opinion that we could use the Bernina patent application to advantage if we owned it prior to its issuance.

J. G. Stanford.

[fol. 5237] Knowing how interested you are in any subject relating to sewing machines, I am going to digress from the subject of patents for one moment to give you some interesting facts.

The agreement was signed here in Zurich at the principal store of Bernina's. At this store, they sell approximately 2,000 sewing machines each year. Of these total sales, 65% are cylinder bed, automatic cam machines. Mr. Gegauf said that, in his opinion, not over one out of every ten women ever use the automatic cam arrangement in the machine after the first few days—that is, after its novelty was gone—but it seems that they insist upon having this in the machine. As it was said, perhaps it is purchased more for the neighbor than for use. The other 35% of the machines sold represent cylinder bed machines with zigzag mechanism incorporated but without the automatic feature. It was our understanding that only about 5% of all machines sold by Gegauf at this store were the non-zigzag type and that very few flat-bed machines are sold anywhere in Switzerland.

Thank you for your letter concerning the Wurker situation. However, I cannot thank Mr. Wurker for his letter to Mr. Adamson. When we last talked with Mr. Wurker,

he gave us assurance that he would give us a license under his patent in return for an agreement not to bring any action against him on the blindstitch attachment. The position that Mr. Wurker is now taking is not disconcerting; it is downright irritating! His letter to Mr. Adamson leaves me with the distinct impression that he feels that he is in the driver's seat. Will you please ask Bob Smith to send to me at Frankfurt a memorandum setting forth the patent status of the Wurker attachment, together with the references we would expect to rely on in case a cancellation proceeding would appear to be to Singer's advantage. I think that I should have all of this material when I am in Frankfurt, so that we may talk in somewhat strong terms with Mr. Wurker, if it becomes necessary. In short, what I would like is the necessary material to convince Mr. Wurker that he is on the "hot seat" and not in the driver's seat.

Thank you for all of the letters that you have sent. They are very interesting and keep me well-informed of what is going on back home. There is one difficulty in using a machine of this kind. One begins to talk, and then becomes so completely intoxicated with his own conversation that he does not know when to stop.

Please give my best wishes to my colleagues and coworkers there in the Patent Department, and, to any of my friends who may inquire about me, I send greetings.

Auf Wiedersehen!

Say, by the way, how do you like that with a *deep* southern accent?

J. G. Stanford.

[fols. 5238-5240] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 32

Cablegram sent to Mr. Lightner by Mr. Waterman (dicated over phone Apr. 16, 56)

Agreement signed Stop Means 282 clear throughout world except Japan and perhaps Brazil where we are opposing and Portugal from every presently known claim Stop 319 likewise although was only involved unimportantly

n our present action Stop Still remains possibility in U.S. of (or) some other unknown case arising but this chance quite remote Stop Details by mail advise Patent Department.

M. L. Waterman.

[fol. 5241] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 34

air mail)

February 11, 1957.

Mr. K. Gebhardt,
Nahmaschinenfabrik Karlsruhe
Aktiengesellschaft,
Karlsruhe (Baden), Germany.

Dear Mr. Gebhardt:

Gegauf Patent Application Serial No. G 15,628

We have received your letter of February 4, 1957 and in response thereto we have this day sent you a cablegram which reads as follows:

"Your protest against Gegauf patent G 15628 would not embarrass Singer and would appear to be advisable."

We agree with you that since Gegauf will not discuss their German patent application No. G 15,628 and your Gebrauchsmuster No. 1,729,923 you have little recourse but to protest the Gegauf patent application. Such a protest will not embarrass Singer as Singer and Gegauf are direct competitors and the recent Singer-Gegauf agreement relating to specific zigzag sewing machine patents does not affect our normal competitive relationship.

We trust that the patent copies which were sent to you under cover of our letter of February 8, 1957 will assist you in your protest against Gegauf patent application No. [fol. 5242] G 15,628. If we can be of any further assistance to you in this matter please advise us.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

[fol. 5243] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 35

March 13, 1957.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Enclosed is the ribbon copy and two carbon copies of our report of the activities of the Patent Department for the year 1956.

We would be pleased to know whether or not the format and the material in this report are satisfactory to you.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosures—

Report (in triplicate)

[fol. 5244] Vice-President's Office

Patent Department Report for the Year 1956

The patent activities of our competitors continued at an accelerated pace throughout the year 1956. Nationals of Japan and Germany have been particularly active in acquiring large numbers of sewing machine patents. In this connection it is apparent that during the past several years Japanese sewing machine manufacturers have filed more patent applications than similar manufacturers of any other nationality. The Japanese patent activity at the moment seems to be concentrated on family sewing machines rather than on industrial type machines with particular emphasis being directed to the automatic ornamental stitch variety. It is obvious that our competitors are continuing to devote considerable effort to improve the function and usefulness of sewing machines, and to protect these improvements.

[fol. 5245] During the past year the Patent Department continued to be actively involved with the patent situation surrounding the Singer Classes 401 and 319 machines. As

mentioned in our 1955 Patent Report there appeared to be at least two outstanding groups of patent applications owned by competitors which would interfere with the manufacture and marketing of the Classes 401 and 319 machines in the various principal countries of the world, such applications being owned by the Italian firm of Vigorelli and the Swiss firm of Gegauf-Bernina. In 1955 Singer was able to negotiate a free license agreement with Vigorelli, and during 1956 a similar agreement was executed between Singer and Gegauf-Bernina.

During the past year our various Singer patent applications relating to the Class 319 machine became involved in conflict proceedings in various countries of the world, including the United States, with applications owned by the German firm of Messerschmitt A.G. It would appear that Messerschmitt might ultimately acquire patents in Europe which would interfere with our Class 319 machine, but the contrary situation appears to prevail in the United States where we would expect to be in a position to dominate [fol. 5246] Messerschmitt. In view of this situation negotiations have been carried on during the past year with Messerschmitt for the purpose of working out a license agreement of the type employed in the Vigorelli and Gegauf-Bernina situations. There is evidence that a Singer-Messerschmitt agreement may soon be concluded so that we will be free to manufacture and market the Class 319 machines in the various European countries without the fear of being involved in patent infringement suits.

[fol. 5247] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 36 (S-8)

Agreement

Agreement dated ——, 1957, between The Singer Manufacturing Company, hereinafter called "Singer", a Corporation organized and existing under the laws of the State of New Jersey, United States of America, and Fritz Gegauf Aktiengesellschaft, Bernina Nähmaschinenfabrik in Steckborn, Switzerland, hereinafter called "Gegauf," a

Corporation organized and existing under the laws of Switzerland, for them and their respective successors.

Whereas, Singer and Gegauf have agreed by agreement dated April 12, 1956, inter alia, that neither party will attack the other in any country of the world on the basis of certain patents and patent applications identified in such prior agreement.

Whereas, Singer and Gegauf agree that their prior agreement of April 12, 1956 shall continue to the end of its normal term and that the present Agreement will modify the prior agreement of April 12, 1956 only to the extent necessary to carry out the spirit and intention of the present Agreement.

Whereas, Gegauf has as of the day and year written above assigned to Singer, its successors and assigns; for the territory of the United States of America, the entire right, title and interest in and to United States patent application Serial No. 358,377 filed May 29, 1953 and to the inventions disclosed therein and in and to any and all United States patents which may be granted therefor and in and to any and all extensions, divisions or reissues of such patents, and Gegauf is desirous of acquiring therefor, in return for the territory of the United States of [fol. 5248] America, a nonexclusive, nontransferable and royalty-free license to manufacture and/or sell sewing machines as disclosed in the said United States patent application Serial No. 358,377 and in any and all United States patents which may be granted therefor.

Now, therefore, in consideration of the premises the parties agree as follows:

(1) In consideration of Gegauf's sale to Singer of the entire right, title and interest in and to United States patent application Serial No. 358,377, to the inventions disclosed therein, and in and to any and all United States patents which may be granted therefor including any and all extensions, divisions or reissues of such patents, Singer will pay to Gegauf the sum of
upon the execution of this Agreement.

(2) Singer hereby grants unto Gegauf a nonexclusive, nontransferable and royalty-free license to manufacture and/or sell in the United States of America sewing ma-

chines of the type disclosed in United States patent application Serial No. 358,377 and in any and all United States patents which may be granted therefore.

(3) Gegauf hereby agrees to assist Singer in acquiring a United States patent based on patent application Serial No. 358,377 to the extent that it will cause the necessary papers and drawings to be properly executed and to do any acts necessary to be done for the procurement of a valid patent or for the reissue, extension or division of any such patent without charge to Singer but at Singer's expense.

[fols. 5249-5255] In witness whereof the parties have executed this Agreement in duplicate as of the day and year written above.

The Singer Manufacturing Company, By ——, ——,
Vice-President.

Witness:
——, ——.

Fritz Gegauf A. G. Bernina Nahmaschinenfabrik, By
——, ——.

Witness:
——, ——.

[fol. 5256] In United States District Court

Defendant's Exhibit 39

President's Office Received April 16, 1958, Answered—

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

April 16, 1958.

D. P. Kircher, Esq., President.
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

Proposed Patent Infringement Suit Against Brother International Corporation and Others

Enclosed is Mr. Brumbaugh's bill for services rendered during February and March in connection with the proposed patent infringement suit against the various United States Brother concerns. This bill appears to us to be in order.

Our United States Gegauf patent application will issue as a patent on April 29, 1958 and we should be ready to file suit against the United States Brother concerns on that date. With your approval, we proposed to file one or more of these suits on or about April 29 unless in the meantime the Japanese Brother Company responds favorably to Mr. Waterman's letter.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

Enclosure—
Bill.

Discussed with Williams 4/16. Told him to hold off on filing until I return from Europe. K.

[fol. 5257] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 40

The Singer Manufacturing Co.
Singer Building
149 Broadway
New York 6, N. Y.
Division of Research

In Replying Please Refer to MLW:V3

May 20, 1958.

Memorandum

Subject: Second Visit of Mr. M. Yasui, President of the Brother Company, at 149 Broadway.

Present were: Messrs. Yasui, Kawashima and Nakagawa of Brother, Japan, and Mr. Max Hugel of Brother International, New York; Messrs. Stanford, Williams and Breen of the Patent Department, Elizabethport and Mr. M. L. Waterman.

The three persons mentioned in the memorandum of May 14th and Mr. Max Hugel again visited 149 Broadway on May 20th in connection with the patent matter referred to in that memorandum.

Mr. Yasui had not received any report from his patent attorneys concerning the patents which had been discussed with him. He stated that he was returning to Japan tomorrow and would arrive there about June 1st and that he would immediately pursue the question of these patents with his attorneys and advise us promptly. He was handed a list of all patents concerned with the two Brother machines in question, which included an item referring to the 401 Machine patent, which is to be issued within a very few weeks. Previous to this, he had had no knowledge of this patent application.

The result of this visit was that Mr. Yasui was informed it was necessary that we take action because of the great number of machines of various makes that are being imported into the United States which infringe our patents and our application, which will become a patent shortly. He

was informed that we were obliged to start proceedings at once but that we would in no way publicize our action, hoping that he would be able to receive the report of his attorneys and take the matter up further with us before the subject would become common knowledge. No mention [fol. 5258] was made by Mr. Yasui or Mr. Hugel of any action that they would propose to take to resolve this matter, but the reason for this was stated as being because they had no knowledge of the status of the patents about which we had advised him.

After the departure of the visitors, Mr. Williams was instructed to proceed at once with the institution of the suit against Brother International Corporation for patent infringement.

M. L. Waterman.

[fol. 5259] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 41

Copy for Mr. M. L. Waterman

Airmail

August 5, 1958.

Mr. J. M. McKinnon, General Manager
Singer Sewing Machine Company
Tokyo

Dear Mr. McKinnon:

Amendments—Basic Agreements

Thank you for your very thoughtful review of the situation to date in regard to our new application for validation as outlined in your E-406/58 of July 23rd and, after much discussion here, it has been decided to proceed with the patent infringements both in Japan and in the U.S.A. as per the information extended through the attached letter from the Patent Department.

We believe you will be pleased to find that, generally speaking, the policies being followed in regard to the patent infringements will not disturb your efforts, and the efforts of our friends in Pino and Japan Steel in regard to valida-

tion. We think in advising our friends of the patent situation you should use the deferments in the actions (whether necessary or otherwise) to emphasize how closely we are cooperating and giving every consideration to their views and thus we expect they will push in every way possible for prompt validation of the basic agreements as now amended.

Very truly yours, Singer Sewing Machine Company,

J. G. Standford, Assistant Vice-President.

cc: Mr. D. P. Kircher, Mr. M. L. Waterman, Mr. J. G. Stanford.

[fol. 5260] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 42

August 26, 1958.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

German-Made Phoenix Zigzag Sewing Machine, Class 283.

On May 14, 1958 we sent you a report, under the above noted heading, stating that the subject Phoenix machine would infringe the following Singer-owned patents:

U.S. No.	Re.24,370,	Oct. 8, 1957,	Harris,
" "	2,832,302,	Apr. 29, 1958,	Gegauf,
Can. "	552,072,	Jan. 22, 1958,	Harris.

You have raised the question as to whether Singer should take any action against the United States importers and dealers of the Phoenix machine on the basis of our United States patent rights.

As you know, the above noted United States Harris and Gegauf patents are currently being infringed by a relatively large number of Japanese-made and a relatively small number of European-made sewing machines. To date, we have filed one civil suit against Brother Interna-

tional Corporation, the United States importer of the Japanese-made Brother machines. During the first week of September, we propose to file in South Carolina a civil suit against a dealer of Japanese-made Sanshin machines. We chose to file civil suits in connection with the Brother and Sanshin machines since it is our understanding that these particular machines are imported into the United States in rather large quantities.

By the latter part of September we plan to file an action with the United States Tariff Commission for the purpose of preventing the importation into the United States of any and all sewing machines which infringe our United States Gegauf and Harris patents. Success before the Tariff Commission should obviate the necessity of Singer bringing separate civil suits against each importer of an infringing machine, whether it be made in Japan or in [fol. 5261] Europe. In view of this situation it is our recommendation that we should hold in abeyance the filing of any further civil suits until such time that we have a rather definite indication as to the status of our Tariff Commission action. In the event that our Tariff Commission action fails, then it would be in order to file civil suits against any infringers of our subject patents.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate.

[fol. 5262] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 43

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

September 17, 1958.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Singer v. Sewing Machine Exchange

Enclosed is a copy of a Complaint which was filed on September 10, 1958.

This Complaint was filed against Sewing Machine Exchange, a retail sewing machine store in Anderson, South Carolina. The suit was filed with respect to a Universal zigzag stitch sewing machine which was purchased on June 23, 1958. This Universal machine is manufactured in Japan by Sanshin and imported into and distributed throughout the United States by Standard Sewing Equipment Corp. of New York. As you know this machine infringes our Gegauf patent No. 2,832,302 and our Harris reissue No. Re. 24,370.

We have been advised that the proprietors of the Sewing Machine Exchange are not interested in defending this suit and are willing to enter a consent decree. However, since we are primarily interested in having Standard Sewing Equipment Corp., the importers and distributors of the offending Universal machine, defend this suit, we are endeavoring at the present time to encourage the attorneys for the Sewing Machine Exchange to contact Standard Sewing Equipment Corp. with a request that the latter party take over the defense of the suit.

We shall keep you advised as to all developments in this matter.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

In triplicate

Enclosure—

Copy of action

CC: Mr. D. P. Kircher.

[fol. 5263] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 44

Received M. L. W., December 10, 1958, Answered—

The Singer Manufacturing Company
Patent Department
Elizabethport F, New Jersey

December 10, 1958.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Singer v. Sewing Machine Exchange, Civil Action No. 2429

Singer v. ALCO Appliance Distributing Company, Civil Action No. AC-241.

In our letter to you of September 17, 1958 we advised that a Complaint had been filed in the name of The Singer Manufacturing Company against Sewing Machine Exchange, a retail store located in Anderson, South Carolina. This Complaint was filed with respect to a Japanese-made Sanshin machine sold by Sewing Machine Exchange under the trademark Universal. These Universal machines were imported into and distributed throughout the United States by Standard Sewing Equipment Corp. of New York. As you know, our Complaint involved a patent infringement action alleging that the Universal machine infringes our

Gegauf patent No. 2,832,302 and our Harris reissue patent No. Re. 24,370.

Unfortunately, neither Sewing Machine Exchange nor Standard Sewing Equipment Corp. would defend this suit and as a consequence we accepted from Sewing Machine Exchange a consent decree of which a copy is enclosed. You will note that by way of this consent decree the defendant admitted the infringement and the validity of the several Singer patents.

Since we were unable to come to trial with respect to the Sewing Machine Exchange suit, we filed on December 2, 1958 a second Complaint in South Carolina based upon the above noted Gegauf and Harris patents. This second Complaint was brought against ALCO Appliance Distributing Company, a retail store located in Columbia, South Carolina. This Complaint was filed with respect to a Japanese-made Sanshin machine sold by ALCO under the trademark Fleetwood which machine was imported into and dis- [fol. 5264] tributed throughout the United States by Fleetwood Industries, Inc. of New York, formerly S.K.S. Machine Company. We hope that either ALCO or its supplier Fleetwood Industries, Inc. will defend the present infringement suit.

We shall keep you advised as to all developments in this matter.

Yours very truly, The Singer Manufacturing Company, J. G. Stanford, Patent Department.

In triplicate

Enclosure—

Copy of consent decree

CC: Mr. D. P. Kircher, w/copy of consent decree.

[fol. 5265] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 45

January 14, 1959.

M. L. Waterman, Esq., Vice-President.
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

Annual Report for 1958.

As requested in your letter of December 9, 1958 MLW: V3, we are enclosing a ribbon copy and five carbon copies of our report of the activities of this Department for the year 1958.

Yours very truly, The Singer Manufacturing

Enclosures—

Copies of report (6)

[fol. 5266] Vice-President's Office

Patent Department Report for the Year 1958

Patent Status of Automatic Zigzag Machines

Some five years ago, this office was primarily concerned with the determination of the legal risks involved if our Company were to make and sell the Class 319 and 401 machines. At that time it was evident that one or more of our competitors owned United States and foreign patent rights which could seriously interfere with our automatic zigzag machine program.

With the subsequent acquisition by Singer of domestic and foreign rights under the Harris, Vigorelli, Messerschmitt and Gegauf patents and the ultimate issuance to Singer on April 29, 1958, of Gegauf United States patent No. 2,832,302, our concern switched rather sharply from problems of defense to those of offense. This was caused by the fact that the Gegauf patent is presently being in-

fringed in the United States by substantially all of the competing automatic zigzag machines.

However, since all of these infringing machines are manufactured abroad, we have, on the basis of our United States Gegauf patent, no legal remedy against the makers of such machines. Further, it would not be feasible to attempt by civil court action to enforce our patent rights against the large and ever-changing body of United States importers and distributors of the infringing machines.

Accordingly we are attempting to gain relief through the seldom-used United States Tariff Rule 337 which, if successful, would result in a Presidential decree banning all further importation of the infringing machines during the life of our Gegauf United States patent. The Complaint praying for such relief was filed on January 14, 1959.

As a part of an all-out attack against these infringers and as a hedge against any possible failure of our Tariff action, a limited number of civil patent infringement suits have been instituted. The first of these suits was filed in May, 1958 in the District Court for the Southern District of New York against Brother International of New York City, one of the largest importers and distributors of infringing Japanese-made machines.

[fol. 5267] For the purpose of obtaining an early adjudication of our Gegauf patent a second civil suit was filed in September, 1958 in the District Court for the Western District of South Carolina against Sewing Machine Exchange, a retail dealer selling infringing Japanese-made machines in Anderson, South Carolina. Sewing Machine Exchange did not defend the suit and as Standard Sewing Equipment Corporation of New York, the importer and distributor of these machines, refused to protect its customer against our charge, Singer had to be content with a consent decree. Although this decree will prevent Sewing Machine Exchange from dealing further with such infringing machines it does not constitute a court adjudication of our patent.

Following this consent decree we filed a second suit in South Carolina in December, 1958 against Aco Appliance Distributing Company, a retail distributor of infringing Japanese-made machines in Columbia, South Carolina.

On December 2, a Johnson United States patent, No. 2,862,468 issued to Singer which, like the Gegauf patent, protects the Class 401 machine. As the Johnson patent is

infringed by the machines against which we have filed suit in both New York and South Carolina, the complaint in each case is being amended to include such patent.

Singer has been approached by Sears, Roebuck and Company for a license under the Gegauf United States patent to import and sell in the United States, an automatic zig-zag machine made in West Germany. A general understanding has been reached and we anticipate the signing of such a license within a short time. Under this license Sears, Roebuck and Company will pay Singer a royalty for each machine it imports into this country.

[fol. 5268]. It has been our long-standing practice to examine all of the patents of our foreign competitors as soon as they are open for opposition. This patent watch during the past several years has developed a startling large number of Japanese patent applications disclosing original improvements in household sewing machines. This indicates that the Japanese are devoting much time and money to household sewing machine research and development. It is apparent when viewed in the light of patents open for inspection, that the Japanese household sewing machine industry has passed the stage where it depends for its advance upon developments originating in the West.

It is equally manifest from our patent watch that the Japanese industrial sewing machine industry is now at the point where the Japanese household sewing machine industry was some ten years ago. In other words, the Japanese are presently at the stage where they are merely duplicating Western type industrial sewing machines. However, while the greater efforts of the Japanese now seems to be directed toward the development and refinement of household machines, we are inclined to the opinion that as soon as the Japanese manufacturers pass through the first phase of copying Western industrial machines they will then devote their efforts toward refining such machines. At the present time published patent applications indicate that the Japanese are particularly concerned with rotary thread take-up devices, rotary hooks and lubricating systems all relating to industrial sewing machines.

It is also interesting to note that the Japanese are filing patent applications in the United States in ever increasing numbers.

[fols. 5269-5270]. IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 46

President's Office Received February 3, 1959, Answered—

Necchi

Sewing Machine Sales Corp.
164 West 25th Street, New York 1
Watkins 4-7604
February 26, 1959

February 2, 1959.

Mr. Donald Kirchner
President

Singer Manufacturing Company
149 Broadway
New York, N. Y.

Dear Mr. Kirchner:

It was a genuine pleasure to have finally met with you and have had an opportunity to exchange our respective thinking.

It is my understanding, confirmed by our counsel, that the complaint recently filed by your company with the U.S. Tariff Commission does not, directly or indirectly, cover or include our companies, Necchi Sewing Machine Sales Corp. and Elna Sewing Machine Co., Inc., or the Necchi and Elna automatic zig-zag sewing machines and parts thereof in any of the charges or matters contained in the complaint.

In our personal meeting it was so confirmed by you, and it was our mutual feeling that a letter of confirmation should follow.

I am leaving for Europe at the end of this week and your confirmation by return letter would, therefore, be appreciated.

May I again reiterate my sentiments expressed to you in person—should there be any occasion in the future, neither

of us will wait on formalities, but will telephone the other for a personal meeting.

Sincerely yours, Necchi Sewing Machine Sales Corp.,
Leon Jolson.

LJ/gb

[fol. 5271] IN UNITED STATES DISTRICT COURT

Received Patent Department, February 27, 1959,
Answered—

DEFENDANT'S EXHIBIT 48

February 26, 1959.

Mr. Leon Jolson, President
Necchi Sewing Machine Sales Corp.
164 West 25th Street
New York 1, New York

Dear Mr. Jolson:

I wish to thank you for your letter of February 2. It was a real pleasure to meet you and I was glad of the opportunity of having a discussion with you.

As I advised you during our meeting, the complaint filed on January 15, 1959 by Singer with the United States Tariff Commission under Rule 337 at the present time relates only to Singer patent No. 2,832,302. More specifically, this complaint asks the President of the United States to issue an order excluding from entry into the United States all automatic zigzag sewing machines and parts coming within the terms of the claims of Singer patent No. 2,832,302.

It is my understanding that you are currently importing into and selling within the United States Necchi "Supernova" and Elna "Supermatic" zigzag machines. Since neither of these two machines comes within the terms of Singer patent No. 2,832,302, any exclusion order which may

be granted with respect to such patent would not interfere with the importation and sale of your current Necchi "Supernova" and Elna "Supermatic" machines.

Yours very truly, ——, ——, President.

Copy to Mr. M. L. Waterman, Mr. C. F. Bruder, Mr. J. G. Stanford

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[fol 5272] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 49

Kane, Dalsimer & Kane
Attorneys at Law
420 Lexington Avenue, New York 17, N. Y.

April 29, 1959.

Branville M. Brumbaugh, Esq.
Braumbaugh, Free, Graves & Donohue
90 Broad Street
New York 4, N. Y.

Dear Brummie:

Re: United States Tariff Commission Proceeding

Our File No. 1070-2

In accordance with our several conversations and in response to the suggestion contained in Joe Colburn's letter of April 13 to Mr. Hemmendinger, I hand you herewith drawings and photographs of the following machines, all of which contain removable cams and which we feel are clearly outside of Gegauf 2,830,302.

1—Aichi Kugyo Co., Ltd.
Model Nos. SZ230; TZ17; TZ10; TZ12; TZ20 & TZ 50

2—Feather Sewing Machine Manufacturing Co., Ltd.
Model No. FSZ-100 and FSZ-110

3—Fuji Precision Machinery Co., Ltd.
Model Nos. RQSZA300-1 and RQSZA300-2

4—Fukusuke Tabi Co., Ltd.
Model No. FZ1
5—Maruzen Sewing Machine Co., Ltd.
Model Nos. 35, 36, 37, 45, 46, 47, 75 and 88
6—Nakajima Sewing Machine Manufacturing Co., Ltd.
Model No. NZ604
7—Nishizawa Super Sewing Machine Co., Ltd.
Model Nos. NH-Z-3; NH-Z-4; NH-Z-5; NH-Z-3b; NH-Z-7; NH-Z-7b; and NH-Z-31

[fol. 5273] We do not have physical samples of any of these machines in our possession but can arrange to have them available if you feel that it is necessary for you to see them. I am afraid, however, that in view of the short time left before the hearing it will probably be impossible to make them available in time to be of any value. We will, however, cooperate to the best of our ability in this regard.

In addition to the foregoing, we also enclose photographs and drawings of the Feather machine model FSZ 120 using a sideface cam, and which we feel is clearly outside of the claims of the Gegauf patent 2,830,302. We do have a model of this machine at our office and will be glad to have it available for you to inspect there at any time convenient to you.

I deeply regret the delay in getting these papers to you, but as I explained on the telephone I have been home ill, and it has been physically impossible to get them ready before today.

Sincerely, David S. Kane.

DSK:lhb

encls.

[fol. 5274] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 50

April 30, 1959.

David S. Kane, Esq.
Kane, Dalsimer & Kane
420 Lexington Avenue
New York 17, New York

Re: Tariff Commission Proceedings (Our File S-3 F-1)

Dear Dave:

In your letter of April 29, you present material with reference to eight different types of machines allegedly manufactured in Japan for import into this country by the manufacturers you mention. I am glad indeed to simplify the proceedings before the Tariff Commission which will begin on Tuesday next by stating categorically that none of the structures shown in the drawings you have furnished to me is involved in this proceeding.

The foregoing statement is made with the strict understanding that I have not read the textual matter furnished with those drawings and therefore I neither agree nor disagree with anything stated in the accompanying text. It is also understood that I am not expressing any opinion as to what the product of any manufacturer is nor as to what any particular model might comprise. I am only giving the opinion with respect to the precise structure shown in the drawings which you have furnished.

While it would, of course, have been easier to have examined the machines themselves rather than these drawings, I appreciate the limited time now available and your difficulty in producing them and therefore am glad to give [fol. 5275] you the foregoing statement which I am able to do very easily by glancing at these drawings.

You mention Joe Colburn's letter of April 13 to Mr. Hemmendinger and, as I understand it, Mr. Colburn has not received a reply from Mr. Hemmendinger so I am not sure

as to just what Mr. Hemmendinger's position is. In any event, we are glad to simplify matters by furnishing you with this statement.

Sincerely, /s/ Brummie.

bcc to: Mr. Williams, Mr. Colburn.

GMB/hmg

[fols. 5276-5280] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 51

Washington, D. C., May 13, 1959.

United States Treasury Department
Bureau of Customs
Washington, D. C.

Re: Investigation No. 17, United States Tariff Commission

Household Automatic Zigzag Sewing Machines

Gentlemen:

In connection with the above, please be advised and informed that the undersigned director on behalf of the Singer Manufacturing Company, is authorized to and states that with respect to any Order which may be issued based upon the pending Investigation No. 17 by the United States Tariff Commission with respect to certain household automatic zigzag sewing machines and parts thereof, the following described sewing machines imported by Consolidated Sewing Machine Corp., do not infringe U. S. Patent No. 2,832,302.

> Sewing machines having a cam unit which is stationary during normal sewing operation, which cam unit is formed with a plurality of cam surfaces any one of which surfaces is adapted to cooperate with the cam follower, which, in tracking, reciprocates back and forth over one of said selected cam surfaces for the purpose of transmitting a transverse motion corre-

sponding to said selected cam surface to the needle, as illustrated in the photograph and drawing attached hereto.

Very truly yours, Singer Manufacturing Co., Alvin K. Aurell, Director.

[fol. 5281] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 52

Received Patent Department, May 19, 1959, Answered—

Brumbaugh, Free, Graves & Donohue
90 Broad Street
New York 4, N. Y.

May 18, 1959.

Frank W. Schattschneider, Esq.
Lamb and Long
Pennsylvania Building
425 13th Street, N. W.
Washington 4, D. C.

Re: Tariff Commission Complaint of Singer Sewing Machine Company

Dear Mr. Schattschneider:

I have your letter of May 11, 1959 enclosing the two instructions booklets distributed by the Rockford Sewing Machine Company, and I note the pages to which you refer. It is not entirely clear and I make the following assumptions. I assume that the only mechanism to move the needle laterally to form zig zag patterns, in each of these machines, is a single cam (replaceable or not) and that the cam follower is thus not adjustable axially on its pivot axis. If the foregoing assumptions are correct, then I am very glad to say that we do not assert that the claims of the Gegauf Patent No. 2,832,302 cover the structure of either of these two machines.

Sincerely, /s/ Granville M. Brumbaugh.

cc: Mr. Chester A. Williams, Jr., J. Bradley Colburn, Esq.

[fols. 5282-5285] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 53

October 14, 1959.

D. P. Kircher, Esq., President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Kircher:

Complaint Under Tariff Act of 1930 (Rule 337) Based Upon Singer-Owned Gegauf Patent No. 2,832,302.

Enclosed is a copy of a Consolidated Sewing Machine Corp. advertisement which is appearing in the current August-September, 1959 issue of "Behind the Scenes". It will be observed that in this ad Consolidated alleges that the three machines featured therein do not infringe Singer's United States patents Nos. Re. 24,370 and 2,832,302. Reissue patent No. Re. 24,370 is our United States Harris patent while No. 2,832,302 is our Gegauf patent and it will be recalled that our present Tariff Action was based upon this Gegauf patent while our civil suit against Brother involves both of these patents.

There is little doubt in our minds but that the three machines featured in the magazine advertisement are clear of any Singer-owned patents for these machines form the subject matter of the Singer-Consolidated agreement consummated during our recent Tariff Action hearings. It would appear that Consolidated has stopped importing into the United States those machines which infringe our several above noted patents. In this connection we have also noted that none of the recent advertisements of Standard Sewing Equipment Corp. have featured the Japanese-made Sanshin machines which they formerly handled and which machines clearly infringe our Gegauf patent.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

Enclosure—
advertisement

CC: Mr. M. L. Waterman, Mr. C. P. Bruder.

[fol. 5286] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 55

August 26, 1958.

M. L. Waterman, Esq., Vice-President,
The Singer Manufacturing Company,
Singer Building, New York.

Dear Mr. Waterman:

I have a copy of Mr. Gegauf's letter of July 25 which you sent to me along with the referral slip asking for my comments on the paragraph concerning the question raised by Mr. Heimann of the Pfaff Company.

Before making any comments I would like to clear up a statement made by Mr. Gegauf in the second paragraph on page 2 of his letter. Mr. Gegauf infers that a patent arrangement has been reached between Singer and Bernina. This implies that we have some type of patent arrangement with the Bernina Company. As you know, this is not true. All we have with Bernina is an agreement whereby the Bernina Company may continue to make a certain type of automatic zigzag stitch sewing machine without fear of suit from Singer, and Singer may continue to make its Class 401 machines without fear of patent infringement suits brought by Bernina. There are no cross-license agreements whatsoever and we have not agreed to anything concerning patents other than not bringing infringement action against Bernina.

After we had spent hundreds of thousands of dollars in developing our Class 401 machine and several millions of dollars in tools, it became apparent the basic United States patent covering the selection of cams as used in the Class 401 machine would be owned by Bernina. It seemed advisable that Singer own the United States Gegauf patent which dominated its new machine and as a consequence we purchased the Gegauf patent from Bernina and gave a nonexclusive license back to Bernina.

I only wanted to point out these facts to make it clear to you that in my opinion we have dealt at arm's length with Bernina and Mr. Gegauf. To agree with Pfaff, Bernina

and possibly other sewing machine manufacturing companies that we would take any concerted action or favor one or more of any group would in my opinion be unwise and contrary to the Singer policy heretofore rigidly adhered to of not working in concert with one competitor against any other competitor.

[fol. 5287] My recommendation is that you simply acknowledge Mr. Gegauf's letter and say that we will inform him as to the final decision handed down by the Court in our suit against Brother.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

In triplicate

[fol. 5288] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 56

December 31, 1958.

L. Adamson, Esq.,
Frankfurt, Germany.

Dear Mr. Adamson:

German Patent Application of Fritz Gegauf No. G 11,654, Class Cl. 52 a, 9/02.

We have received your letter of December 15, 1958, Ga/Ma., submitting to us a list of publications appearing in the Patentblatt issues Nos. 47, 48 and 49/1958.

Page four of your letter contains a notation that the above identified Gegauf German application had been withdrawn and that the effects of a provisional protection are considered as not having taken place.

You may recall that Singer is licensed under this Gegauf German application and is the owner of United States patent No. 2,832,302 which corresponds to this German application.

In view of this situation we would be pleased if you could determine the exact status of this German application and why it was withdrawn. We presume that in view of the

withdrawal of this application there is no possibility of having a German patent ultimately issue therefor.

Any information which you can furnish us relative to the present and future status of this application will be greatly appreciated.

Yours very truly, The Singer Manufacturing Company, ——, ——, Patent Department.

CC: Messrs. Cruikshank & Fairweather, Mr. M. L. Waterman.

[fol. 5289] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 57

Received M. L. W., March 9, 1959, Answered—

Fritz Gegauf
Steckborn/Schweiz

Inhaber der
Bernina-Nähmaschinenfabrick

March 6th, 1959.

Mr. M. L. Waterman
149 Broadway
New York 6, N. Y.

Dear Mr. Waterman:

Being in possession of a full documentation of the Complaint of the Singer Manufacturing Company, I would like to wish you the best of success for this petition of 64 pages.

When studying the complaint, I noticed that you contemplate to grant a licence under the patent 2,832,302 to Sears, Roebuck and Company of Chicago, Illinois, for importation into the United States of an automatic zigzag machine manufactured in Western Germany by Gritzner-Kayser A. G. in Durlach.

Owing to the fact that your complaint is mainly based on the Bernina Patent we ceded to you, I take the liberty to kindly ask you why you will be granting a licence for the automatic zigzag machine of Gritzner-Kayser. The Sears,

Roebuck and Company might, if occasion arises, include in their sales programme the Bernina sewing machine instead of the Gritzner-Kayser.

I would be pleased to hear from you in such matter.

With kind regards, I remain,

yours truly, Fritz Gegauf, senior.

Copy to J. G. Stanford.

[fol. 5290] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 58

Department of Commerce
United States Patent Office
Washington

Michael S. Striker
511 Fifth Avenue
New York 17, New York

Applicant: Arnaldo Vigorelli
Ser. No. 393,760
Filed: Nov. 23, 1953

For: Embroidery Stitching Sewing Machine

Jan. 19, 1956.

Please find below a communication from the Examiner in charge of this application.

Robert C. Watson, Commissioner of Patents.

The following claim found allowable, is suggested for the purpose of interference. Applicant should make same by February 24, 1956 under the provisions of Rule 203. In making this claim applicant is required to overcome the filing date (Rule 131) of the Harris patent, of record, which shows the construction set forth in the claim; failure to do so will be considered a disclaimer of the subject matter involved:

> A sewing machine comprising, a frame, a needle pivotally carried by said frame and mounted for endwise reciprocation and for lateral swinging movements,

a rotary shaft mounted in said frame for reciprocating said needle, means for rotating said shaft, a series of rotary cams carried by said frame and mounted about a common axis, means connected with said shaft for rotating said cams about said common axis, a cam follower mounted in said frame having a single cam-engaging head for engaging and responding to the surface of a cam of said series, means enabling a selected cam to be engaged by said cam-engaging head, said series of cams and said single cam-engaging head being relatively shiftable lengthwise of the common cam axis thereby to effect a complete traverse of said series of rotary cams, means normally urging said cam-engaging head into engagement with said selected cam surface, means engageable with said cam follower for withdrawing said cam-engaging head from said selected cam surface, and a pitman having one end connected with said needle at a point spaced from the pivot and its other end operatively connected with said cam follower thereby to impart lateral swinging movement to said needle in response to the surface of said selected cam.

[fol. 5291] The time limit for making the claim expires February 24, 1956.

The statutory period of response to the last Office action will expire six months from the date thereof.

——, ——, Examiner.

/Franklin/ud

[fol. 5292] IN UNITED STATES DISTRICT COURT

DEFENDANT'S EXHIBIT 59

Received Patent Department February 16, 1956,
Answered—

Michael S. Striker
Patents and Trade Marks
511 Fifth Avenue
New York
Murray Hill ——

[name illegible]

Via Air Mail

January 23, 1956.

Cicogna Franco & C.
Via Visconti Modrene 16-18
Milano, Italy

Gentlemen:

Re. U. S. Patent Application, Serial No. 393,760, Embroidery Stitching Sewing Machine, Arnaldo Vigorelli. Your ref: Ann/

This is to inform you that the enclosed Office Action has been received in the above-entitled case.

A term is set to expire on February 24, 1956, and in the event that the claim proposed by the Examiner in the Office Action is not made within the term, the subject matter of this claim will be considered disclaimed.

Please note that claims 23 and 25 of the present application were rejected on the Harris reference in the Office Action dated September 23, 1955.

The Examiner requires the inventor to overcome the filing date of the Harris patent. This patent was filed on June 9, 1952, that is prior to the filing date of the corresponding foreign applications which, according to the oath, were filed in Italy on January 28, 1953 and on September 29, 1953, and in Argentina on May 13, 1953.

Consequently, we cannot rely on the filing dates of the corresponding foreign applications, and the only way to overcome the filing date of the Harris patent is to prove that the invention, as set forth in the proposed claim, was introduced into the United States prior to the filing date of the Harris patent, that is prior to June 9, 1952.

[fols. 5293-5295] If you have proof of such prior introduction into the United States, which may have been in the form of a machine delivered to the United States, or any other disclosure in the United States, please inform me immediately by air mail of the facts involved, and I will prepare a suitable affidavit to the statements set forth in your reply and mail it to you so that the inventor may sign it.

Please note that such affidavit and an amendment submitting the proposed claim must be filed at the Patent Office before:

February 24, 1956

so that it is necessary that the correspondence is carried out by air mail and without any delay so that a response can be made before the expiration of the term since otherwise the subject matter of the proposed claim would be considered disclaimed.

Very truly yours, Michael S. Striker.

MSS:WCG
Encl.